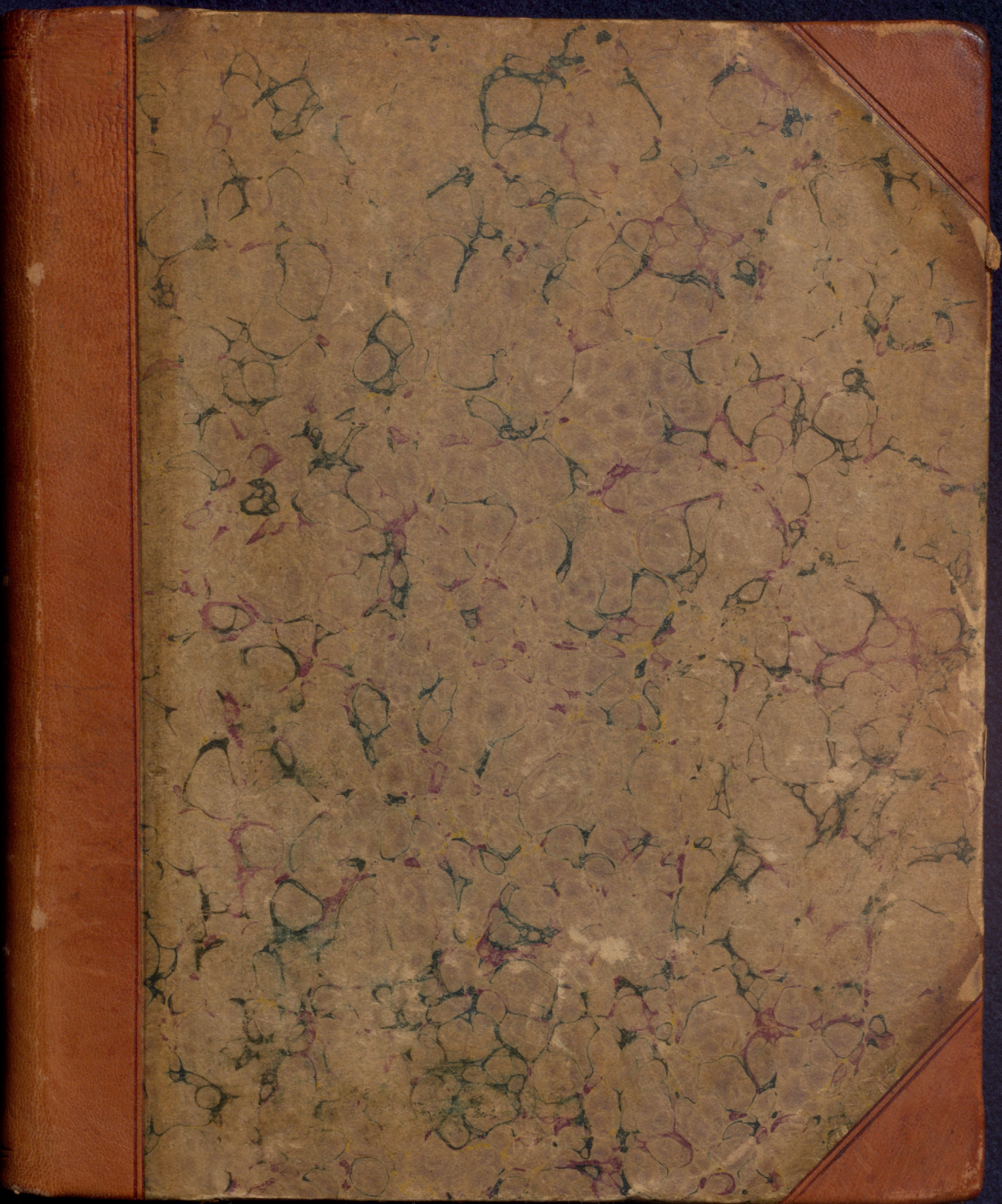




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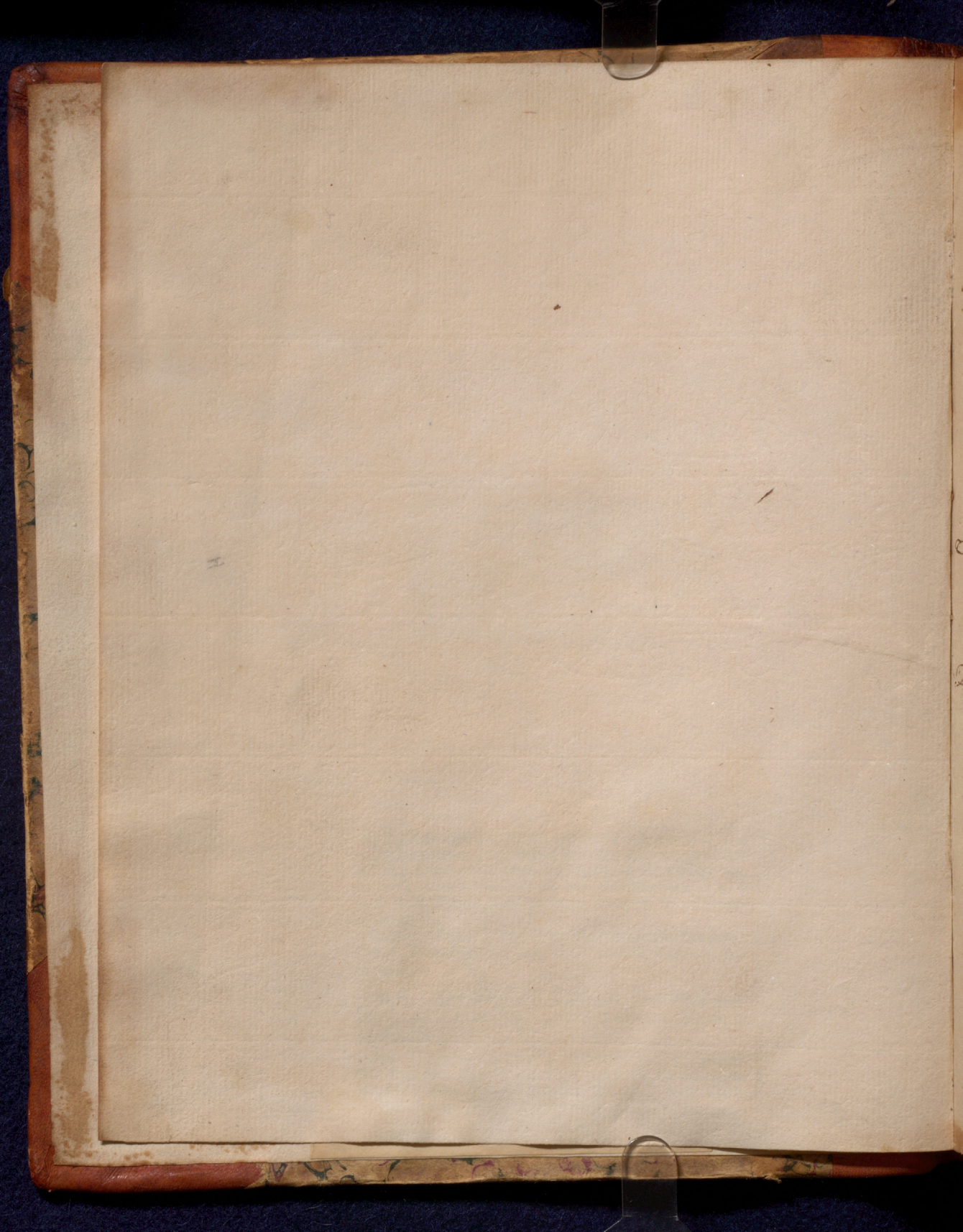
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WISTAR (CASPAR) 1761-1818.

7635. In English, on paper: written by Wm. Darlington in 1802-3: $8\frac{1}{8} \times 6\frac{3}{4}$ in., 1+91 leaves.

'Notes taken from the Anatomical Lectures of Doctors Shippen and Wistar; in the University of Pennsylvania. By W^m Darlington, Student of Medicine', dated Nov. 1802-3. Followed (at fol. 74^v) by notes of William Shippen's 'Lectures on Midwifery'. Foll. 1, 82-end are blank.

A note on Darlington (1782-1863) is inserted. He became a well-known botanist (see Kelly, no. 6691).



Notes

Taken from the Anatomical Lectures
of
Doctors Shippen and Wistar;
In the University of Pennsylvania...

By Wm Darlington, Student of Medicine. —

Anatomia — Medico —, utilis est. —

Anno Domini 1802. —

— — —

1840
The following is a list of the
names of the persons who
were present at the
meeting of the
Board of Directors
of the
City of New York
on the 1st day of
January 1840.

Notes, &c. —

November 12th — Doctor Shippen introduced the Anatomical Lectures, by a discourse on the origin of the profession, the number of its cultivators, their characters, and on its importance in the study and practice of medicine:— concluding with a detail of the order they meant to adopt in the course of their Lectures upon that branch of Medical Science. — Hippocrates was perhaps the first who made anatomy his study;— The number of ^{volumes} ~~authors~~ upon the subject amount to upwards of 30,000! Anatomy is divided into two kinds the human, and comparative;— the latter being that of brutes, &c. The various modes of prosecuting anatomy, are by dissection, maceration, injection, &c. — Doctor S. then went on to prove the necessity & propriety of every part of the body; and concluded by an account of their intended mode of procedure.

Novem. 15th The second Lecture, which was a species of Introductory, was delivered by Doctor Histar:— He began by informing the Class of the seriousness of the undertaking. He then went on to exhibit several portions of the animal body; and to describe their structure, and uses in the economy of the same. Among the portions exhibited, were a Muscle, a tendon, a heart, with its immediate appendages, distended with way, a portion of an artery, & the same of a vein:— Also a piece of nerve, the functions of which he described;— and two figures, prepared so as to exhibit the arterial & venous systems in their natural position. The Muscle is composed of extremely small fibres, of great flexibility, and connected together, so as to form a bundle (in the proper shape to execute the duties of its office,) by means of cellular Membrane, which envelops every fibre:— The office of the Muscles is to perform locomotion, by acting on the bones

was bones of the skeleton:- It is by means of the Mus-
by icles that all our actions are performed. —
As the Muscle is too bulky, and does not pos-
= ~~sufficient~~ sufficient strength in its fibres singly,
to be inserted into the bones, it is condensed
at each extremity into a tough, white, in-
= sensible substance call tendons, which may
be inserted in less space - and act the part
of ropes, in bending the joints, when the
Muscle contracts. — The Heart is the grand reservoir
of the blood; it, in common with the other
muscles possesses a principle, or quality,
and call'd Irritability which enables it to con-
tract when stimuli are applied: — When
the blood is poured into the right ventricle
from the right auricle, & subclavian vein,
the stimulus of the blood, mixed with the
new chyle, and of distension, enables & causes
it to contract immediately; which forces
the blood into the pulmonary artery, &
distributes it over the pulmonary appa-
= ratus; — Here it undergoes oxygenation, and
is soon taken up by the pulmonary veins
and

and carried by the same into the left Auricle, & from thence poured into the left ventricle of the Heart; the additional stimulus of oxygen to what was before-mentioned, causes a vigorous contraction of the ventricle, and the fluid contents are propelled through the arteries to every part of the body: they are then taken up by the veins and carried back again to the right auricle of the Heart; after performing the office of nutrition, and reparation of waste, &c. — The uses of the arteries and veins will be seen in the above description; the arteries are composed of an extremely firm & elastic substance; capable of great extension: — It is not muscular, for muscles are inelastic; but seems to be formed of dense, firm, circular fibres, peculiarly fitted for the office of assisting the Heart to propel on the blood to the extreme parts of the body: — The veins are quite different; being flaccid, and more like cellular membrane; neither do they retain their shape, but become flat.

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The nerves are fibrous cords of a white color, which originate from the brain and spinal marrow; they extend to every part of the muscular system, and to the skin; and the smallest pointed instrument cannot be applied to those parts without causing sensation; and the nerves are the organs of sensation. The manner, in which they act, is, as yet, totally inexplicable; or rather, the manner in which they are acted upon by the Will. However, that they are the medium by which the mind acts upon the body, is ascertained by the total inability to action when they are divided, or paralysed. The fibrous parts of the nerves are enveloped in a white membrane which originates from the Mater. When external stimuli are applied to the body, they convey sensation to the mind, which, perceiving the impression, exerts its influence, thro' the medium of the nerves, upon the muscles, causing them to contract and remove the cause;—or somehow so! Lecture was concluded by a recommendation of books. &c. &c.

Novem. 16th The third Anatomical Lecture, by
Doctor Wistar, was composed of an account
of the cellular Membrane; of the structure
of the bones, of the distinction between A:
-pophyses & epiphyses.—and of the articu:
-lations in general; He also described the
Membranes which cover the bones & car:
-tilages, and those which line the inside of
hollow bones.—The cellular Membrane is com:
-posed of extremely thin laminae, laid on
one another so as to leave cells, or flattened
cavities, which, in corpulent people, are
filled with fat.—The Bones are a vascu:
-lar substance, whose basis is Phosphate
of Lime.—Their external parts are very com:
-pact & hard; but the internal, are, in
the cylindrical bones, porous, or spongy;
constructed like the cellular Membrane
and whose cavities contain the Medulla,
or Marrow.—The flat bones are upon
the same principle, but the cellular, or
porous parts are much smaller in pro:
-portion; being like two plates laid, & con-

connected ^{together,} by the lamina. — An Apophysis⁵
is a part of the bone itself, which origin-
ally belongs it, and ossifies with it; where-
as an Epiphysis is, in children, detached
from the body of the bone, and only
becomes connected with it when they
are both completely ossified; An Apophy-
sis is a protuberance of the bone itself; An
Epiphysis a kind of accretion; or distinct
part. — The bones are covered by a Mem-
brane, (which is connected by innumera-
ble fibres, and vessels,) called Periosteum;
The membrane lining the cells of the
internal parts of the bones, is called in-
ternal periosteum. In the articulations,
the deep sockets are called cotylloid,
or cup-like cavities — the shallow ones,
Glenoid. — The bones are connected by three
different substances; 1st by Cartilage, called
Synchondrosis; — 2nd by Ligament, called
Ligamentum; — 3rd by ^{neurosis} ~~ligamentum~~ neurosis; — 3rd by flesh, called Myofascia. —
Bones received into a socket, are united

by that species of articulation called
Enarthrosis; those articulations which
admit of free motion, are called Di:
-arthrosis; - those which move like a
hinge, Ginglymus. The teeth are con:
-nected to the Jaw by that species cal:
-led Gomphosis: - the connection of the bones of the
skull with each is designated by the name
of Suture. The membranes which cover the
cartilages as the periosteum does the bones,
is called perichondrium. - The cartilages are
firm, elastic substances, which seem ad:
-mirably adapted to preserve the ends
of the bones from the ill effects of fric:
-tion, to which they would be liable in
the flexion and extension of the joints. -
They are kept moist and slippery by
means of a liquor which is secreted for
the purpose, called synovia. The use of
the bones is to give figure & firmness
to the body, and to guard vital parts from
injury; as the ribs & skull. - Much of this
interesting Lecture, I cannot insert here. —

Novem. 17th Lecture fourth. — After making some
interrogations among his pupils concerning the va-
-rious articulations, mentioned yesterday; Doctor
Pistar proceeded to give a general description
of the Skeleton. — Skeletons are distinguished by
the names of Natural & Artificial: — The natural
skeleton is that in which the bones are con-
-nected by the Ligaments; it gives a more cor-
-rect idea of their situation, ^{& connection} with each other
than the artificial: — This latter kind, has
the bones united by means of wires, or
any other artificial medium; it serves to
give an idea of the different movements
of the bones upon one another, which
the natural skeleton can not. — Some parts
of the skeleton project behind the centre
of gravity; and others before it: — but upon
the whole, when the body is erect, the
centre of gravity falls directly upon the
middle of the feet; this being the fact, if
all muscular exertion were to cease in

in the erect body, it would immediately fall prone to the earth; for the legs rest behind the middle of the feet:— This mechanism serves to facilitate progression forward;— The body is sustained in an erect posture, by the action of antagonizing muscles; it is impossible to stand, or even sit erect, without the exertion of the muscles; therefore, either of those postures will induce fatigue, or exhaustibility; which requires that we should put them perfectly at rest, by laying down.— The bones are well adapted by their curvatures, &c. to the application of a large number of muscles upon them; in order to effect the various motions.— The Head is divided into cranium & face:— It is an irregular spheroid; different in shape in different nations:— At birth, it forms one third part of the whole body; in an adult, it forms but one ninth:— Its transverse extent is greater at the hinder part, than at the Os frontis, &c. &c. &c.—

Novem. 10th Lecture 5th. The reason why we in-
cline to the opposite side when one leg is
lifted, in walking, is owing to the involuntary
contraction of the Muscles on that side. The skull
is divided into 6 bones - which are proper to it;
and two which are common with it and
the face - The former are, the os frontis, two
os parietalis, os occipitis, and the two os
temporum. - The latter, the os sphenoides, &
the os ethmoides. - They are connected by that
species of articulation called suture - except
the os temporum, which is connected to the
os frontis, & the adjoining bones by a species
of articulation called harmonia. - The skull
is compound, like the other bones, of a hard
external lamina, ^{on each side} and an internal cellular
texture. - but those laminae have peculiar
names - they are called tables, & distinguished
by the names of external & internal. - The
cellular part, or cancelli, is called diploe,
or medullium. - The skull is covered by a
membrane, like the periosteum of the other
bones

bones, which is denominated pericranium.
and the membrane lining the inside, simi:
-lar to the internal pericranium, is called
dura mater - they are connected to, and
penetrate the skull, by a vast number
of small blood vessels. - The sutures which
connect the bones of the cranium, have
various names: - that which joins the os
frontis to the os parietalis, is called coro:
-nal suture: - that which connects the
parietal bones, sagittal suture: - that which
joins the occipitis to the parietal bones,
lambdoidal suture; the inferior extremities
of this suture are called its additamenta.
Those which join the temporal bones to
the skull, temporal, ^{or squamos} suture; And that
connecting the os frontis to the bones of the
face, in the bottom of the orbits of the eyes,
transverse suture, &c. A Gentleman had
Vertigo, stupor, & sense of fulness in head, to
a great degree; - bleeding, purging, &c. gave no
relief - but was soon cured by cupping; -
A discourse on Children's heads ended the Lecture.
They differ much from adults: -

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Novem. 19th. Lecture 6th.— To-day's Lecture was confined intirely to the description of the skull of the various figures of the bones; their pro-
cesses; and sinuses.— The processes at the exter-
nal corners of the forehead, or superciliary ridge,
are called external angular processes; and
those at the internal, internal angular
processes;— the process at the superior part
of the nose, the nasal process.— There is an
indentation in the skull, along the sagittal su-
-ture from the os frontis to the occiput,
which is the bed in which a large triang-
ular vein-like vessel of the dura mater,
called longitudinal sinus.— just above the
nasal process, on each side, between the ta-
bles of the os frontis, are the frontal sinus-
es; which contribute much to delicacy
of the sense of smell:— as they communi-
cate with the nares.— The orbital process is
a part of the os frontis, it is very thin &
transparent; hence fencers aim at it. —
The head of children are one third their
size at birth;— those of Adults but 1-9th.

Novem. 20th Lecture 7th. - Dr. Wistar, in this Lec-
-ture, gave a very minute and interesting ac-
-count of the occipital and temporal bones - their
-figures, various processes, and numerous fo-
-ramina. - The figure of the os occipitis is some-
-what similar to the "ace of diamonds!" - The fur-
-row of the longitudinal sinus continues on to
-the cricial spine of occiput; where it branch-
-es off on each side into the lateral sinuses;
-or rather into the beds of those sinuses. -
-The inferior extremity of the os occipitis is
-an epiphysis at birth - but becomes com-
-pletely united in adults - it is called the
-cuneiform process. - The foramen Magnum
-is in the body of this process. - The two
-condyles which rest on the atlas are so
-formed as to prevent the head from slop-
-ping, or twisting. - Temporal bones - squami-
-ous parts - Occipital portions, & petrose
-portions: The two first are so called from
-the manner & place of connection - the last
-from the nature of its composition. -
-The various processes are from these bones.
-The various foramina I have not time,
-nor capacity to enumerate explicitly.

Novem. 22nd Lecture 8th. The Lecture of to-day⁹
was confined to the description of the sphenoid
and ethmoid bones. — The sphenoid bone is si-
tuated in the middle of the basis of the skull. —
Its figure is compared to a bat with its wings
extended. — The pterygoid processes are from this
bone — also the clinoid processes; — surrounded by
the clinoid processes, is that cavity called the
sella turcica, which contains the pituitary
gland. — This bone is connected with all the
bones of the cranium; & also with the two
cheek bones; the two superior Maxillary bones;
the two palate bones; & to the vomer. — It con-
tains many important foramina. —
The ethmoid bone is situated in the anterior
part of the basis of the skull; above the root
of the nose, & between the orbits. Its structure
is cellular, & remarkably delicate. — It gives rise
to the crista galli, septum ethmoidale, Nasal
plate, &c. The crista galli arises from the centre
of the cribriform plate. A vast number of
nervous filaments pass through those foramina
into the cavity of the nostrils. — &c. &c. &c. &c.

Novem. 23rd. Lecture 9th The bones of the
face formed the subject of to-day's Lecture.
They are 13 in number - 6 pairs & 1 odd one -
viz. *Ossa maxillaria superiora* - *Ossa Malanum* - *Ossa*
Nasi - *Ossa Ungues* - *Ossa turbinata inferiora* - &
Ossa palati - The odd one is the *os vomer* - it
divides the cavity of the nostrils - I shall only
note one pair of the others - the *Ossa palati* -
they are situated at the posterior part of the
superior maxillary bones - form the back part of
the roof of the mouth - & extend to the orbits of
the eye; of which they form a small part -
When the venereal disease affects the eyes,
and is attended with ulcers in the mouth
we should suspect a communication by
means of this bone - The cavity of the nose
communicates with the frontal sinuses;
the ^{of the} ethmoid bone; the *antrum maxillare*
& the cells of the *os sphenoides* ^{& *Ossa sphenoides*} I believe -
The superfluous tears pass through the
lacrimal duct into the nose - hence
when people are affected without crying, they blow the nose.

Novem. 24th. Lecture 10th. The ossa nasi, ossa mala:
 rum, & ossa unguis were considered to day. — The
 ossa nasi are plain simple bones, situated be:
 tween the nasal processes of the superior max:
 illary bones, forming the bridge of the nose. —
 The ossa malarum form the prominent parts
 of the cheeks: — they are connected by their zy:
 gomatic processes, to the zygomatic processes
 of the temporal bones: — by their maxillary
 processes to the ossa maxillaria superiora;
 & form a considerable part of the lower cir:
 cumference of the orbits of the eyes. — The
 ossa unguis are very small, delicate bones
 situated in the internal canthi of the eyes;
 by they contain the lacrymal sacs in their
 grooves: — It is of importance to know their
 precise situation; as when the course of the
 tears into the nose is obstructed by a round
 inflammation, it becomes ne: d. the op:
 eration necessary to puncture this bone is was
 & form an artificial opening. — is related:
 & God almighty make them on purpose for the
 the puncture is easily done when ^{operation} I know.
 done right — by this we know.

Novem. 25th. Lecture 14th. This day we had
a minute description of the inferior tur-
binated bones; and of the os vomer.— The former
bones are situated in the side and lower
part of the nostrils: they augment the sur-
face of the organ of smelling, &c. &c.— The vomer
is situated in the middle of the cavity
of the nostrils:—posteriorly it is connected with
the nasal plate of the ethmoid bone; and
forms, with it, the septum narium.—
The posterior nares, or that portion of the
nostrils which opens into the mouth, are
large enough to admit the end of the finger;
which may be done in cases of polypus.—
In passing a bougie into the mouth by
the nostrils, we should keep the point
down upon the palate process of the superior
maxillary bone, and close to the
cells septum, or it will be entangled.—
There have been cases of polypus
lachrymæ in the Antrum Maxillare, cured
when fresh by trepanning the cheek, & extirpation.

Novem. 26th. Lecture 12th. Some remarks were
made on the diseases of the palatal, turbinated,
& ethmoid bones. A case of syphilis once occur-
ed to Dr. Winter, when the patient blew a small
piece of bone from his nose; loosened by this
disease. Also two cases where the septum of
the nose was perforated by a syphilitic ulcer.
Cured by touching the part with Calomel, or
Unguent. Citrinum. on a hair pencil. The
inferior Maxillary bone was next described;
which need not be repeated here. When the
mouth is opened wide, this bone is liable to
be luxated; In the reduction of which, we
must put our thumbs in the mouth, and
press downwards, before we attempt to press
backwards; ^{sometimes the jaw snaps to, after the reduction & catches the finger} and it will be easily done; other-
wise not. ^{on the thumbs of the operator.} In the decline of life, when the
teeth fall out, the alveoli disappear; &
the jaw becomes smooth & more round;
it also protrudes, & inclines toward the nose.
A general description of the Trunk was
then given; & its divisions & uses related;
which will be minutely discussed tomorrow.

Novem. 27th. Lecture 13th.— The motion of the head backwards and forwards is performed on the Atlas; The rotatory motion is performed on the vertebra dentata.— When the neck is dislocated, which is chiefly done by being twisted on one side / We should draw the head from the body as much as can be conveniently done, & then turn it to its natural position. — If we attempt to turn it before, the oblique processes will be entangled.

Novem. 29th. Lecture 14th.— A description of the dorsal & lumbar vertebrae formed the subject of to-day's Lecture:— They increase in size as they go down. — The ends of the ribs are received into a cavity formed by two vertebra; the ribs are also connected to the transverse process. The foramina for the passage of the spinal nerves are formed by two vertebra. — We should never open the tumor in Spina bifida; gentle compression might do some good at first. — Setons in curved spine.

Novem. 30th. Lecture 15th.— In addition to
 the remarks on the use of Setons, or Issues
 in curved spine, of yesterday, Dr. Wristar
 mentioned a machine which has been
 used with success in that disease, when
 issues have failed—viz. a pair of stays,
 which have a rod, or small bar of iron
 that goes up the back, and curves over
 the top of the head, and suspends the
 weight of it by means of fillets; there-
 by preventing it from pressing on the
 spine. &c.— In cases of deficiency of bony
 matter, the Muriate (and Phosphate?) of Lime
 has been given with benefit; in the
 dose of a drachm for an adult, & decreasing
 it for children.— A description of the false
 spine, composed of the sacrum & coccyx
 was then given; the sacrum is composed
 of 5 bones in children, which become ossi-
 fied into one in adults.— The os coccygis
 is made up of three bones, which termi-
 nate the spine in a point.—

December 1st. Lecture 16th. — To-day's Lecture consisted of a description of the Thorax, & of the elementary principles of Respiration. — The thorax consists of the spine behind, & 12 ribs on each side — with the sternum before. — During respiration the ribs are alternately raised & depressed. — In inspiration, they are raised upwards & outwards at the same time — and the diaphragm brought to a plane, so that the thorax is enlarged in every direction. — There is a groove in the lower edge of each rib, in which an intercostal artery is lodged; however at the ends of the ribs the artery departs a little, therefore in performing the operation of paracentesis for empyema, we should introduce the trochar at the middle of the ribs, and at the upper part, or edge of the ribs — thereby avoiding the Intercostal Arteries. — During Inspiration the lungs are expanded by the vacuum, when the air within expands, & causes the external air to rush in.

Decem. 2nd. Lecture 17th. The peculiarities
 & uses of the sternum were described:— And
 also the bones which compose the pelvis.
 Sometimes the xiphoid cartilage is turned
 inwards, and occasions distressing symp-
 toms at the scrobiculus cordis. The pelvis
 is composed of the sacrum & coccygis be-
 hind; and the os innominata before, &
 at the sides. In females with very high,
 low backs, or pelvis otherwise deformed,
 difficult labors are the certain consequences
 of pregnancy:— & when consulted, we
 should advise such Ladies not to marry!—
 Females inclined to rickets, or otherwise
 weakly, often distort their pelvis by sit-
 ting on low seats, or on one side of their ischia.
 An accoucheur should be well acquainted
 with the structure of the pelvis. A
 well formed pelvis should form an arch
 at the pubes; & not an angle; this lat-
 ter circumstance can be discovered by
 applying three fingers to the inside of the
 pubes;— If they lay in range the form is good.

Decem 3rd. Lecture 10th. - After some In-
terrogations respecting the Pelvis, and
observing that it was the rule among
Accoucheurs to apply two fingers to the
internal side of the pubis, to discover
if they formed an arch, or angle; Dr.
M. told us, that in fractures of the
pubis, between the symphysis and
Ilium, it was ^{difficult} ^{to discover} ~~extremely~~ where the
fracture was; or whether it were at
all fractured: but in such fractures
the patient is unable to stand, and
feels as if he were coming asunder.
The only way to discover it is to ap-
ply a hand to the pubis, and cause
the patient to sneeze, or cough: this will
make the ends of the bones move.
All that can be done, is to enjoin rest.
He then described the clavicle & scapula.
The clavicle is very liable to fracture: -
it keeps the shoulders square - The up-
per edge of the scapula is called superior costa -
the back edge its base. fore edge its anterior costa -
External part, dorsum - internal, venter - processus. &c.

Decem. 4th. Lecture 19th. The use of the clavicle is to support the arm & shoulder and keep them from approaching each other. The scapula serves as a fulcrum for the humerus to turn upon. The humerus and cubit were described; their various processes, and grooves, &c. — The Ulna is so called from being used as an ell measure. The Radius from a supposed similarity to the spoke of a wheel. — Olecranon, head of the Ulna.

Decem. 6th. Lecture 20th. In fractures of the clavicle, it has been found extremely difficult to keep the fragments of that bone in apposition. Two modes are now discovered, which are very eligible. — Suspend the humerus & cubit in a sling, and either apply a cushion in the ^{the triangular cushion invented by Desault is the best. The thick side is up, & the humerus confined to the body of the arm, the axilla, or confine the humerus of both arms pretty well backwards; —} The same practice is observed, where the clavicle is separated from the acromion. — In determining whether the humerus be lapped, we should remember that the head of the humerus stands forward, before the other processes, when in its natural position, &c. &c.

Decem. 7th. Lecture 21st. When a Lady's clavicle is fractured, we should be particular in keeping the bones in apposition; - for if a callus makes a disagreeable appearance there, she cannot expose her neck, & she will never forgive us. To day's Lecture was on the Carpus - The bones of the carpus are arranged in two irregular rows - & is composed of 8 bones - viz. os scaphoides, os lunare, os cuneiforme, os orbiculare, os trapezium, os trapezoides, os magnum, & os unciniforme. - The Metacarpal bone of the Thumb rest on the os trapezium. - They all form a cavity internally, where 8 tendons are lodged. -

Decem. 8th. Lecture 22nd. - The remainder of the superior extremities was described. - Sometimes, when the radius is fractured, the fractured end is turned in to the Ulna; this requires care; - it is apt to be mistaken for an ill-set wrist, when the wrist is perfectly well. To discover whether the radius be fractured, we should lay the cubit on a table, and confine the Ulna while we attempt to move the radius; - if it be broken, a sensible crepitus will be discovered. - The hand & arm form the most ingenious machine ever created - capable of vast operations.

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Decem. 9th, Lecture 23rd. — The os femoris was this day described: — The few peculiarities of this bone are plain & striking. — The centre of motion ^{axis} of the head of the femur is almost at right angles with ~~the centre~~ ^{that} of the body. — The large protuberance on the external part of the femur, at its upper end, is called the great trochanter, into which are inserted the 3 glutei muscles. — The small protuberance on the inside, the less trochanter, which receives the psoas & iliacus internus muscles. — The linea aspera rises from the less trochanter, and runs down the back part of the femur. — The lower end is divided into 2 remarkably large condyles.

Decem. 10th, Lecture 24th. — The tibia supports the body — the fibula merely giving origin & insertion to muscles, & keeping the foot in its proper direction. — When the foot is bent much outward, the fibula is very liable to fracture. This is difficult at certain times to discover: — but it may be discovered by pressing the fibula near the knee; if broken it will give pain ^{at the point}, otherwise not. — The patella serves as a defence of the knee joint, and as a kind of pulley for the muscles of the thigh. —

Decem. 11th. Lecture 25th. The Lecture of this day was on the Tarsus. - It is composed of 7 bones. - The great difference between the foot & hand, is, the foot forms almost a right angle with the leg. &c. &c. &c.

Decem 13th. Lecture 26th. - This day's Lecture completed the description of the Skeleton. The Metatarsal bones contribute with those of the tarsus to form an Arch which prevents injuries from falls, &c. - The club foot has been cured by an old Woman, by means of mechanical Application - & stretching the muscles of the part with the hand - & applying an ointment supposed to be made of Stammonium - a known relapant. -

Decem. 14th. Lecture 27th. - Some remarks on the Lower extremities. - The os femoris is much oftener fractured at its neck, than luxated. - It is then rendered shorter by the contraction of the muscles. - Eminent Surgeons have doubted whether ever luxation took place with this bone; but it certainly has been luxated. - The most common & difficult case is when the head of the bone slips into the foramen thyroideum. In this case the position

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of the leg and foot is not changed; but, owing to the shallowness of this cavity, the leg is rendered a little longer; However, this mark must not be depended on as decisive. — The patient should be laid upon his back, and both knees raised until they are perpendicular; but here you may be deceived; for owing to the pain of the distended muscles on the same side, the vertebra will turn to accommodate the muscles, &c. — This luxation is very difficult to reduce: — a French surgeon has been successful by pulling the thigh obliquely outwards, & then directing its head into the acetabulum. — When the thigh is luxated outwards the feet are turned inwards, & vice versa. — — A Fresh Subject was exhibited to the class — the skin & Integuments removed, to show the Linea alba, pyramidalis, &c. — Strict secrecy was enjoined; for the ignorance, and prejudice of the populace is such, that riots have been committed in consequence of a knowledge of dissections — Our general safety, in fact, depends upon secrecy. —

Decem. 15th. Lecture 20th. - We should remember the Abdominal Muscles, for we are generally questioned first on those parts upon examinations; and a ready answer to the first questions is of importance. They are five pairs, viz. Obliquus descendens externus, & ascendens internus. Transversalis; - Pectus abdominis; - & Pyramidalis. To day's Lecture was on the imaginary divisions of the abdomen, and a general description of its contents. - The abdomen is divided into the following regions, viz. Epigastrium - Hypochondriac - Hypogastric - Lumbar - Iliac - Umbilical - & Pubic regions. - The lower end of the sternum is Scrobiculus Cordis. - In femoral hernie, the Intestines pass under Poupart's Ligament which runs from the pubis to the Alium.

Decem. 16th. Lecture 29th. - Peritoneum, Pectoralis Major, and minor, and Latissimus dorsi; - The last is a very broad, strong muscle, as it supports the whole weight of the body in hanging by the arms. It arises from the spine of the ilium, spinous processes of the Lumbar vertebra, &c. and is inserted in the

os humeri near its head. This, and the pectoralis
perform many important motions. The flatu-
lency we often feel, and suppose to be in
the stomach, is mostly in the colon, which
inverts the other intestines, and is immediate-
ly under the stomach. The intestines are
about 4 or 5 times the length of the body. —

Decem. 17th. Lecture 30th. — Pylorus, Stomach,
Gall bladder, ductus communis choledochus,
Kidneys, ureters, &c. were exhibited to-day. — Also
the pancreas, spleen, liver, and duodenum. —
The duodenum is firmly tied down to
prevent obstructions, &c. The pain caused
by calculi in the ureters has often been
mistaken for colic. — The bladder has no bones,
it has been so distended with urine as to
reach to the ensiform cartilage. A woman
was tapped for dropsy which proved to be
nothing more than a distended bladder. —

December, 10th. Lecture 31st. — Diaphragm,
Proas Magnus, et parvus, Iliacus, Trapezi-
us, &c. — Matter is frequently formed in
the proas, and passes down to the groin
like a femoral Hernia, from whence it
may be discharged with ease. — It has fre-
quently been mistaken for hernia. The

paracenteric of the bladder may be easily and safely performed when much distended by laying the body in a proper posture to relax the muscles, and draw up the peritoneum. By feeling we discover exactly the situation of the bladder, &c. The puncture should be made about an inch above the symphysis pubis. A young male subject was shewn the clasp.

Decem. 20th. Lecture 32nd. - Serratus posterior, levator scapuli, deltoides, Serratus post. inf. serratus major anticus, and Rhomboides. - The Thorax was dissected into, and the lungs shewn in the natural position. They adhered to the pleura a little but were found.

Decem. 21st. Lecture 33rd. - Splenius, spinalis dorsi, supra costales, sacro-lumbalis, Conspicuous dorsi, & complexus. - also a demonstration of the Heart, auricles & blood vessels. - The aorta arises from the left ventricle, but passes in a winding direction towards the right, from whence rises the pulmonary artery. - An instrument inserted between the 4th & 5th ribs will wound Diaphragm.

Decem. 22nd. Lecture 34th. — Platysma Myoides, Sterno-
Cleido-Mastoidens, Digastricus, Mylo-hyoideus,
Genio-hyoideus, Genio-hyo-glossus, Sterno-hy-
-oideus, Coraco-hyoideus, Sterno-thyroideus, Thy-
-reo-hyoideus, and Crico-thyroideus muscles.
 The heart and lungs were exhibited out of the
 body; the latter inflated to show their shape.
 The right lung is composed of 3 lobes, & the
 left of 2, for the accommodation of the heart.
 Owing to inflammation, in the present
 subject, they were of a florid color, & the right
 lobes agglutinated; — the natural color is of a
 dark brown, or livid hue. — The Platysma Myoides
 is a very thin muscle, its use to depress the
 skin & sides of the face. — The sterno-cleido-mas-
-toideus is the seat of disease in the wry neck. —
 a partial division of it has effected a cure, but
 a division is a dangerous experiment. — A
 spasmodic contraction of it was excited by the
 application of a blister for sore throat. — The
 spasm remained after the throat was cured,
 but went off at length, to the great relief of Dr.
 W's mind. — The students had quarrelled with some
 Midshipmen, whom they intended to fight at
 the next play, but the Dr. gave them a seri-
 -ous lecture on the impropriety of such a pro-
 -ceeding, & the probable consequences.

Decem. 23rd, Lecture 35th. — Occipito-frontalis,
Orbicularis palpebrarum, Levator labii super.
alaque nasi, Nasalis, Levator anguli oris, Zygomaticus major et minor, Orbicularis oris,
Depressor anguli oris, Depressor labii sup.
alaque nasi, & Buccinator. — Dr. Jacobs enter-
tained the class by moving the occipito front.
which he did with facility. — This power
is possessed by few. — It is by this mean
that the hair is said to become erect upon
being frightened. — Winking is performed
without consciousness, by habit. — Dr. W. con-
cluded this lecture on the muscles of the
face, by some remarks on Physiognomy. —
He rejects Lavater's notions respecting the
shape of the forehead, or lobe of the ear, but
he thinks the muscles of the countenance
that are acted on by the passions, may be-
come so fixed by habit as to be expressive
of the dispositions of men. — Lavater gave a
just description of Dr. Monro's character merely
from viewing his likeness. —

Decem. 24th. Lecture 36th. — Corrugator super-
cilii, which gives great expression to the
passions; — Temporalis, Masseter, and Mass-
glossus. — Deglutition is compared to putting
on a stocking by Dr. Lippin. —

Decem. 27th. Lecture 37th. - Supra & infra -
-spinatus, Subscapularis, Teres major & minor,
Coraco-brachialis, Biceps flexor cubiti, Triplex
extensor cubiti, whose tendinous expansion is
attached to the olecranon.

Decem. 28th. Lecture 38th. - The muscles
of the living subject are 10 times stronger
than of the dead; - The long head of the biceps
from a rupture of its confining ligament,
has been displaced from its groove, & caused
pain & inflammation along the muscle -
Flexor carpi radialis, Palmaris longus, et
brevis, Flexor carpi ulnaris, Extensor carpi
radialis longior, et brevior, Extensor carpi
ulnaris, Flexor sublim. perforatus, Profundus
perforans, Lumbricales, & Extensor Digit. Commun.

Decem. 30th. Lecture 39th. - Muscles on the
inside of the forearm & hand. - The ends of
the fingers are subject to a disease called Paro-
nychia, which can only be relieved by in-
cision, & emollient poultices. - We should
however attempt to disperse by leadwater, astring-
t. Sometimes the pain & inflammation
extend up the arm - General & local
bleeding, &c. should be used in this case.
The gluteus maximus was exhibited to
the class - beginning with the lower extremities.

Decem. 31st. Lecture 40th. Tensor vagina femoris,
Triceps adductor femoris, pectinalis, Obturator
externus, and internus, Gluteus Medius & Mini-
-mus, Pyriformis, gemini, & quadrat. femoria-
Also, The extensors of the leg, viz. Rectus femoris,
Vastus externus & internus, & crureus, 4. - &
flexors, viz. Semitendinosus, Semimembranosus,
Biceps flexor cruris, & popliteus, 4. - On
the inside are 2, Sartorius, & Gracilis; - &
one on the outside, viz. Tensor Vagina femoris.
The Dr. [Shippen] passed some ragged old
compliments upon the gentlemen
for their knowledge of Anatomy. -

¹⁸⁰³
January 3rd. Lecture 41st. - Tibialis
Anticus, and posticus, Peroneus longus, and
brevis, Gastrocnemius, Soleus, Plantaris,
Extensor longus digitorum pedis, and brevis. -
Amputation of the leg should be performed
below the insertion of the muscles of the thigh.
In abscesses of the thigh, it is necessary as
soon as fluctuation is felt, or matter known
to exist, to open them; as the matter under the
fascia lata will much more readily pass
down even below the knee, than externally.
In club foot the affected muscles are the Tibiales. -

January 4th. 1803. Lecture 4^{2nd}. The Ten-
do Achillis is sometimes ruptured, from
 the great weight it is destined to sustain. A
 person ascending a pair of stairs ruptured the
 tendon, with great noise, without feeling pain,
 whence the Do. infers that tendons are in-
 sensible in a healthy state. — The following
 muscles were exhibited, viz. Flexor brevis dig. pedis,
Lublimus perforatus, Flexor longus digit. pedis
profundus perforans, Lumbricalis pedis, Obtu-
rator externus, lying over the foramen thyroide-
um, — From the study of plates without
 examining the anatomical structure, our
 opinions will often be erroneous; but after
 examination, plates will be found useful. —

January 5th. Lecture 4^{3rd}. — Tendon of the flex-
or pollicis pedis, abductor minimi digiti pedis,
 not solely accommodated to the little toe, — Flexor
proprius not interosseus, transversalis pedis.
 This is peculiar to the foot, not being in the hand;
aponeurosis plantaris, originating from the
os calcis, that of the hand is called apon. palmaris.
 A view of the origin of the 2 heads of the rec-
tus femoris was given — one from the superior
 spinous process of the ilium, the other from inferior

A dissection of the joints of the lower extre-
-mities, with surgical remarks. A congres-
-sioner, 14 years ago, in jumping out of his
carriage, forced the astragalus forwards en-
-tirely out of its place; Dr. W. with the advice
of Dr. Jones, concluding the ligaments were so
much ruptured as to prevent its being
replaced, cut it out with care. The pa-
-tient, notwithstanding, recovered & could
walk nearly as well as ever. The ankle
became very large in consequence of the
thickening of the ligaments, &c. It is
of much consequence in wounds of the
knee to know whether the capsular li-
-gament be injured or not. We are to be
directed by the patella when the leg
is extended. The semilunar cartilages
are connected with the capsular liga-
-ment. The crucial? ligaments cross, or
decussate each other, & give great strength
to the posterior part of the joint.

Jan^y 6th. Lecture 44th. The Bursa Mu-
-cosa contain but a small portion of li-
-quor in a natural state; - One of the
largest is at the knee above the patella.
From violence, or other causes an effusion
or dropsy sometimes takes place, when

a fluctuation may be felt at the part. - All that is necessary in common, is a dose of phlogistic, small bleeding, &c. - If this fail, mercury to touch the mouth & promote absorption. -

The ligament of the head of the thigh bone is im:
properly called the round ligament. The capsular ligament here in particular seems to originate from the periosteum, & is not to distinguished from it until it envelopes the head of the bone; - On the anterior part it appears to have two coats, and is very thick & strong; laterally it is thin. - Scrophulous complaints originate chiefly from these 2 great joints, &c. - An Infant was exhibited with clubbed feet, deformed hands, & spina bifida. - It was born thus deformed. Dr. W. said where both feet were clubbed they were easier managed than one, as they would act as splints to each other. In this disease, the tibialis anticus & posticus are first affected, afterwards the tendons of the feet contract, and give ~~them~~ the club shape. - A new sub:
ject was produced. The external oblique muscles, and integuments were removed to give a view of the recti, transversalis, & pyramidalis, but more particularly of the

the abdominal ring, and spermatic cord. —
The abdominal ring is formed by Poupart's
ligament, & tendon of the external oblique
muscle. Poupart's ligament passes in a
line from the anterior superior spinous
process of the ilium to the pubis. In
attempting to reduce hernia by pressure
it will be of no avail to push up in
a line with the recti muscles, nor to
press hard in any direction, as the in-
testine will be doubled, &c. — but we are
patiently to press by little & little
at the opening of the ring, upwards
and outwards in the direction of the
orifice, which inclines towards the
ilium. The patient should have his
hips high, & heels up, & chest low. —
In 9 cases out of 10, the patient may
be relieved in this way. It is of great
consequence to ascertain where the ring
is. — The most copious bleeding may be
used to prevent inflammation, gangrene
and death. Dr. M. has taken at the rate of
2 grs. a day, & small bleedings afterwards;
with application of cold water in a bladder.
The

The warm bath exclusively has proved sufficient. Purgatives are of use if they can be retained in the stomach. Injections have also been used. Poupart's ligament is formed of a duplicature of the tendon of the external oblique muscle. On laying it open, the internal oblique comes into view. — A lengthy discourse! —

January 7th. Lecture 45th. — The Infant upon examination, had in addition to the contraction of the tibialis Anticus, posticus, and the flexor of the great toe, a muscle extraordinary arising from the tibia and inserted into the flexor. Whether such a muscle always exist in cases of club-foot, Dr. W. does not know, but is of opinion it does not. It is, however, of no consequence in the treatment. — The Spina bifida was a very singular one. It commonly is owing to a defect of one of the vertebra only; but in this case, the whole of the lumbar vertebra were affected, divided in the middle, exposing the spinal marrow; — the sacrum was also uncommonly deficient, and the coccygis wanting; a happy circumstance for the child that it died so soon. — In the operation for scrotal hernia, called the tapis, it will not be proper

for fear of exciting inflammation, to continue the pressure of the fingers longer than 15 minutes at a time:— In the interval, a cold application should be used. Dr. W. has known Ice applied so as to freeze the Integuments, and the hernia to be reduced. The pressure should be made with so much deliberation that the patient will scarcely feel it, & the reproach of being asleep should not be regarded! The other hand should support the tumor. Applications to the part with a view of relaxing it will forever be in vain, — as the ligament is of a texture not to be relaxed. Injections that calculated to relax the whole abdomen are of use? — The most powerful of which is Tobacco. — ʒijss to the grint, is sufficient. Dr. W. has known several who have nearly lost their lives by an over dose of it. In one of these cases, the tumor instantly collapsed; but on the recovery of the patient from syncope, it again returned; so that we must be aware of this, as it relieved the flatus only. — Purges are of use by increasing the peristaltic motion of the intestines. — Also Opium. — Sim-

Simple protusion is not accompanied with ²³
danger; as there have been cases where the sac has
hung down to the knees without any bad conse-
quences. It is only cases of strangulation where
the peristaltic motion is suspended, that danger
exists. The first symptom of this is sickness and
vomiting; followed by colic. It is remarkable
that in these cases patients only complain of
pain in the middle of the abdomen, without
referring it to the seat of the disease. It is
therefore necessary to make inquiry of patients
on this score, who have colic pains, as Dr. Wistar
has been nearly deceived several times. The
peritonaeum seldom, if ever recedes. Hence, after
once having a hernia, the danger of its renew-
ing without a truss. After all the remedies
mentioned for reducing hernia have failed,
if a fever commence, with a dry tongue, your
patient is in imminent danger. Now is the
time to proceed in the operation. It is simple,
and only requires care and a steady hand to
avoid danger. Make the incision first thro'
the integuments, along the whole course of
the tumor. To avoid cutting too deep, take
up small portions of the skin in your fin-

fingers at a time. After this incision, if still unable to reduce the hernia, you must open the sac also. This is the most delicate part of the operation; but you can see so clearly what you are about, you may easily avoid all danger. First make an incision so as to introduce the finger, and it may be completed with ease. The orifice may be enlarged to considerable extent with perfect safety. Dr. W. has known it enlarged to the extent of 2 inches. The patient should be in a position to favor the gravitating return of it. The first person Dr. W. operated upon, died. Adhesion had taken place, & inflammation, gangrene, & death supervened. All violence on the Intestines must be avoided. The wound by being closed (by sticking plaster?) heals very soon by the first intention.

Jan. 8th. Lecture 4th. The Lecture of to-day was on the Stomach. Its first coat is derived from the peritoneum; between which and the muscular coat, is a layer of cellular substance, or a cellular coat. The muscular coat is much thicker and stronger than the peritoneal coat. Several Mechanical Authors,
who

who supposed digestion to be effected by trituration,
 compare this coat to a pair of mill-stones!
 capable of grinding bone. — vide Spicarium. — Be-
 tween this coat & the internal, or villous coat,
 is another cellular coat, more firm than the
 former. — This has been improperly called the
 nervous coat, and was thus termed when nerves
 and tendons were thought to be the same; —
 so that by nervous, was meant tendinous coat.
 The next, or inner coat, is called villous, from
 the roughness of its surface resembling velvet.
 This important viscus is intimately connect-
 ed with all parts of the body by sympathy;
 more particularly with the skin & glandular
 system. — Spalanzani & Sr. Stevens supposed
 that Digestion was performed intirely by the sol-
 vent power of the gastric juice which is secreted
 in it. — Professor Kuth has proved by experiment
 that fermentation does take place. How far this
 fermentation is necessary, is the question to be
 decided. — The gastric juice has been found, by
Jr. Hunter, to erode the stomach after death,
 & that the principle of Animation pre-
 vents this whilst present. — &c. &c. —

January 10th. Lecture 4th. Recapitulation on
the Stomach. It has 5 coats, including its cel-
lular coats. Its villous roughness is not
so great in the intestines, but it is more
spongy. Dr. Woodhouse proposed the fol-
lowing Question to the Philosophical So-
ciety - "As the Temperature of the human
body is the same in all seasons, how comes
it that cold water has such a deleterious
effect in the summer season?" - Altho'
the temperature of the body be uniformly
the same in all seasons; the excitement is
certainly greater in warm weather than in
cold: And to this increased excitement is
owing the effect of cold water in producing
sudden death. The Dr. could not, he told us,
account for it in any other way. - The
valvula conniventes, or villous coat of the
intestines, serves in some measure to prevent
the retrograde motion or papes of the faeces.
They form a great vascular surface: - That
they are extremely vascular is proved by the
red color they assume when injected; the
injection squeezing out red blood into the
serous

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serous vessels - And further by the increased quantity of fluid secreted into them in certain cases of diarrhoea, which could not be derived from any other source; - It has been secreted to the amount of several gallons a day. - The Intestines have the same number of coats with the Stomach; but they are much finer in the former.

Jan 4 1811. Lecture 48th. - The Intestines have a vermicular as well as a peristaltic motion. The former motion is evident from the passage of Mercury in a short time through the whole canal which is 5 times the length of the body; - especially when we consider that it passes a considerable way in a direction contrary to gravity. - Injections may be made to pass beyond the valve of the Colon. - The injecting instrument for this purpose was invented by De Haen, and first tried upon a dog, whose intestines are similar to those of a man. Life may be supported by injecting nutritious fluids in this way. - Dr. M. related the case of a dyspeptic woman who would in all probability have died, had not nourishment been given by the Anus. Her stomach was so irri-

table, that he ordered her to abstain from at-
tempting to swallow food. She could not make
the effort to swallow without being nause-
ated; he gave injection of Laudanum in soup.

Dr. May of Wilmington, cured a patient in the
same manner. He was a drunkard, & in a
fit of intoxication had cut his throat by
which he was prevented from swallow-

ing. Injections were given, as he had been
accustomed to strong drink, Wine was in-

jected; and he became so accustomed to its
stimulus in this way, that he was not satis-

fied without the injection of large quantities-
so as to intoxicate him. The use of the Ap-

pendicula vermiformis is not known. The
large intestines have not the valvulae conni-

ventes, but resemble the stomach in being
more spongy. In tinctery there is an in-

creased peristaltic motion & vice versa? ac-

companied with large discharges. The em-
aciation that so suddenly takes place ⁱⁿ cho-

lera morbus is owing to an increased ab-
sorption. The sinking of the eyes into
the head is owing to the absorption of
the fatty matter in the posterior part of the
orbit, —

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Jan^y 12th. Lecture 49th.— The disease in the
intestines called convulsus, is caused by their
twisting over each other— This, unless relieved
by small doses of Physic terminates in In-
flammation, gangrene and death. Equal
parts of Salap & caenor tartar are to be preferred.
In cases of Intus-susceptio, the swallowing of
 crude Mercury is of little consequence. If
Physic do not succeed in removing it by ex-
citing the peristaltic motion, there is little to
be done, but to prevent inflammation as long
as possible by depleting remedies— vide Van Swieten.
In this disease, large portions, to the length of
6 inches of intestine have been discharged by
stool without bad consequence. Obstructions
at the valve of the colon have been quickly
cured by exciting a salivation.

Jan^y 13th. Lecture 50th.— The subject of the present
Lecture, ~~was~~ the Liver.— It is the largest gland
in the body;— and is of the conglomerate kind. The
general opinion is that the bile is secreted from
the minute extremities of Arteries, without
undergoing any chemical process. Malpighius
& Reuzsch had a warm contention on this sub-
ject. The former contended that the blood
was

was arrested, or received in little cells, at the extremities of the Arteries, where it underwent a chemical process, &c. This he pretended to have discovered by his glasses. — The latter drew his conclusions from injections; and Boerhaave decided in his favor, as have later Anatomists, who have made improvements in injections. None of the cells have been discovered — but how the change is effected is not known. — The manner in which calculi is formed in the bowels is not well known. — Large calculi have been found in the stomachs of Horses, particularly about German-town, Penn. — What gives rise in that place to produce them is not known. — Upon cutting them open, a nucleus is generally found, such as nails, &c. — Different calculi appear to be formed of different substances. — They ought to be carefully analysed. — Dr. W. recommended it as a fit subject for an Inaugural Dissertation. — The Vena Cava passes through a portion of the Liver — Vena portarum. — January 14th. Lecture 5th. — Liver continued. — To understand the nature of the bile, it is necessary to consult both Physiologists (the bile is prepared from venous blood.) and

at and Chemists. The gall bladder is merely a ²⁷
reservoir, or receptacle of the bile. Its situation
in some Animals, and experiments have clear-
ly proved this. Some Physiologists have sup-
posed it to be an excrementitious fluid; the cir-
cumstance of the scuttle-fish favors this O-
pinion; Its excretory duct, in this fish, opens
near the Anus. Whether in producing disease,
it acts solely from its quantity, is not yet
fully ascertained. It is certain that its ef-
fects are in some instances deleterious. In
cases of redundancy of it in the human sto-
mach, it produces lassitude and nausea. A
frog instantly died after a portion of it, taken
from 2 others was introduced. Dr. W. has
known cases where 2 or 3 quarts of Matter
have discharged from the Liver without a-
ny bad consequences; &c. The pain in the
shoulder which sometimes occurs in Hepatitis,
cannot be accounted for. The cause of our laying
commonly on the right side is owing to the site
of the Liver. It then rests on its surface on the
side. When we lay on the left side it is suspen-
ded by its ligaments alone. The circulation between
the Mother & fetus, is by means of this Viscus. &c.

January 15th. Lecture 52nd. — Spleen — Its use is not certainly known. — The most probable opinion of its use is, that it acts in conjunction with the Liver in the preparation of bile, as it contains nothing but blood vessels and lymphatics. — And its communication with the Liver favors this opinion. — It is by no means essential to life. — The Spleen, from debility after intermittent fevers, sometimes enlarges to an enormous size, without producing pain or any serious consequences. — Steel is the best medicine that can be used. — It acts by its tonic power upon the whole system. — A young negro female was exhibited to show the Gravid Uterus; — She was about in the 5th. Month of gestation. — Such an opportunity is seldom enjoyed by the Class. — A particular description of the Uterus was deferred until we had seen the unimpregnated one. — However, we had a fine view of its site — of the Ovaria, the fallopian tubes, ligamenta lata, &c. — And also the manner in which the Intestines & peritoneum were raised, &c. site of the Bladder, &c. —

January 10th. Lecture 53rd. - To-day we had a de-
 monstration of the parotid and submaxillary
 glands - the pancreas, &c. - The duct of the parotid
 gland passes over the Masseter muscle, and pierces
 the buccinator - passing into the mouth about the
 second dens molaris. - The submaxillary & sub-
 lingual, pass in under the tongue. - The Saliva
 appears a solvent power. This was first
 observed from its dissolving, or corroding ivory teeth.
 It is an animal mucilage, and as animal mat-
 ter has the power of hastening vegetable fer-
 mentation, its use in digestion may be thus
 accounted. It cannot be solely for the pur-
 pose of moistening the mouth, as sufficient
 moisture for that purpose may be derived
 from other sources. - The tartar on the teeth
 is formed by the deposition of a calculeous
 matter contained in the saliva. - The Gynan-
 che parotidea is very infectious. - The swelling of the Tes-
 ticle that occurs after it, Dr. W. could not explain, as no
 communication between the parts are known. - Sever-
 al Students of Medicine had it one Winter so bad
 as to be confined to bed, & to require several bleedings.
 The strictest inquiry was made to know whether
 it did not proceed from another source!! The pan-
 creatie gland is much similar to the salivary glands

glands in appearance, and in the fluid they secrete. The pancreatic duct passes through the middle of the gland. This gland is seldom diseased. In a case of violent dyspepsia, upon dissection, it was found to be diseased & obstructed. It was so enlarged as to press upon the duodenum.

-Dr. Shippen once had a patient who complained of pain in the neighborhood of the Anus for a great length of time, & concluded it must be an hemorrhoidal affection; and solicited the Doctor to perform the operation, but in vain, as no disease could be discovered there. From the long continued irritation, he at length died. Dr. S. found upon dissection that the pancreas was much enlarged and elongated, and turned down at the end upon the spine, where it had produced the irritation felt at the Anus.

A case occurred this winter of a tumefaction of the sub-maxillary glands in an Infant. It was born so, and could not swallow. Its life was sustained until it got well, by pressing down the tongue, &c. and then conveying aliment into the stomach.

Jan'y. 19th. Lecture 54th. - Stony concretions are found in the pancreatic duct analogous to those of the parotids. Vesicles are sometimes

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times formed under the tongue from obstructions
of the submaxillary ducts as large as hazel nuts.
The sublingual glands affect the mouth most
in cases of inflammation. In scarlatina, the
parotids are more disposed to suppuration than
in Cynanche parotidea. Dr. W. saw several cases
wherein he thinks they were destroyed. The
Kidneys appear to be destined for carrying
off the water from the blood, as in a healthy
state the flow of urine is in proportion to the
quantity we drink; also, the greater quantity
we drink, the paler is the urine. From nice
calculation it has been ascertained that one
eighth of all the blood passes through the
kidneys. Of course the secretion has the oppor-
tunity of being copious. This calculation
seems to render Dr. Darwin's theory unneces-
sary. The experiment of Eustachius in tying the
ureters of a dog, also proves that there is
no other passage to the bladder. There are
2 kinds of diabetes. In one sugar is secreted
and not the other. A peculiar action ap-
pears to be induced, in this disorder, in the
kidneys. Dr. W. once had a patient who was
under the necessity of having two buckets
by his bedside at night. Once was taken

these full of water to drink, the other empty - During the night he would empty by the one and fill the other. - Although drought always attend this disease, it has been found that abstinence from water does not lessen the discharge. - This patient was relieved by Alum, and prevented the recurrence of his complaint by occasionally adverting to it. - He afterwards died of another disease, viz. a mortification of his back. - His Urine contained large quantities of sugar & salt - Alum will not always cure it. - The following, I believe, is a prescription Dr. W. mentioned. Carbonas calcis, Crem. Tart. Acid Tart. Potassu.

January 20th. Lecture 55th. - Kidneys - The kidneys of the fetus are lobulated, like those of a bullock, &c. The properties of the Urine has been too much neglected - probably owing to the ridiculous assertions of some Physicians, or Quacks, in pretending to understand diseases by it, without seeing the patient. - But still it should not be neglected, or considered merely as an excrementitious fluid. - It contains an acid, called the Lithiasic Acid. - In Intermittent and hectic fevers this acid

is most plentifully formed. Calculi are most frequently found in the kidneys than bladder. In passing the Ureters they cause exquisite pain. Pain is first felt at the small of the back - the region of the kidneys - the pain is afterwards felt anteriorly like colic - the patients complain of nothing but colic, often. After bleeding and purging for 3 times successively, St. M. has found the complaint still to recur; and gravel has finally been discharged. A drawing up of the testicle, and a numbness of the thigh are true pathognomonic signs of this disorder. The best solvent is the Veg. Alkal. saturated with the carbonic acid. The use of the Appendages to the kidneys has never been ascertained. They bear a resemblance to glands, or carunculae - and are called, if I mistake not, glandulae renales, or glandulae succenturiatae.

Jan'y 24th. Lecture 56th. - Vesica Uinaria - Ureters, & some general remarks on the parts to which the bladder is connected formed the subject of today's Lecture - viz. the prostate gland, vesiculae seminales, Urethra, Vas deferens, &c. - The bladder and its connections, are

liable to many, and the most distressing diseases, with which mankind is afflicted. Dr. W.'s own experience evinces this. The Ureters after penetrating the muscular coat of the bladder near its neck, pass along between its coats about half, or three quarters of an inch before they open through the inner coat. This structure serves the purposes of valves when the bladder is distended. Dr. W. informed us that this question, respecting the course of the Ureters, was put to the Medical Candidate, when undergoing an examination. The internal coat of the bladder is much smoother than that of the stomach - and is lined with mucus to defend it from the acrimony of the Urine. At the entrance of the Ureter into the muscular coat, it is narrow, which occasions great pain when the calculi arrive at that part from the kidneys. The prostate gland adheres to the neck of the bladder, & nearly surrounds it: in fact, the Urethra does run

through it. When it enlarges, it raises up the neck of the bladder. The *Vesiculae Seminales* are situated on the posterior surface of the neck of the bladder. While Dr. W. was a student with Dr. Shippen; he saw a subject in whom, from obstruction in the Ureters, the pelvis of the kidneys were enlarged like bladders.

Jan. 22nd. Lecture 57th. The subjects of last lecture continued. The most important operations are performed on these parts, & their situation in the body - as well as their relative situation with each other ought to be well understood. The vesic. seminal. are generally supposed to be reservoirs for the semen, but Jno. Hunter made some objections to that doctrine, as they appeared to contain a very different fluid. However, Dr. Shippen thinks he rather relinquished that opinion before his death. Those vesicles are much convoluted; & may be drawn out into one long canal, but not quite straight. The Prostate gland is the most firm in structure of

any in the body. - It secretes a milky fluid supposed to be of considerable importance in generation. - These parts are liable to disease from Venereal and other causes. - The enlargement of the prostate may be felt by a finger in the rectum. - There is a portion of the Urethra between the prostate, and the bulb of the Urethra, which is of great importance to be understood when introducing the catheter. - It is perfectly detached from other parts, and is a mere membranous tube - hence called the membranous portion of the Urethra - Without care, it is liable to be lacerated by the catheter, and of course, it will not pass into the bladder. - Dysuria is sometimes brought on by an enlargement of the caput gallinaginis, a small body on the side of the Urethra, in the prostate gland; round which the seminal ducts open.

open. - The flexible catheter is much preferred by Dr. W. - though he thinks every practitioner should possess a silver one, as the flexible ones are liable to be impaired. The mucus in the bladder prevents the adhesion of calculi. - Dr. W. is of opinion that calculi never adhere, unless the mucus have been destroyed by disease and a bare surface is left for the calculi to form a connection with. - A french physician treated the distressing symptoms attendant upon a defect of mucus, with great success, by injecting simple mucilaginous liquids into the bladder - as pure barley water well strained. &c. This affords a mucus to the internal coat, & sheaths it from acrimony. - The same physician put a piece of wood into the bladder of a living dog. - The wound soon healed. - & he found in a short time, that calculi adhered to the wood. - Hence it appears that calculi never form without a nucleus - or when there is a defect of Mucus.

January 24th. Lecture 50th. - Penis,
Corpus cavernosum penis, and corpus
spongiosum urethrae. - From the corpus
spongiosum urethrae proceeds the glans
penis, or crown of the penis; and not
from the corpus cavernosum. - The true
corpus cavernosum is inclosed in an
elastic ligament. - Dr. W. has had se-
veral cases of Impotence; and all
of them owing to a want of distention
in the corpus spongiosum urethrae, &
glans penis. - The remote cause was
uniformly excess in early life. - The
duct through which a mucus is poured
for the lubrication of the urethra, is the seat
of gonorrhoea. - The discharge is induced from
inflammation alone; - The yellow color of
it is owing to the same cause? - It is ne-
cessary to be well acquainted with
the natural size of the prostate, so that we
may judge of its state by feeling in ano.

Jan^y. 25th. Lecture 59th. - Penis, Intesti-
num rectum, &c. - Phymosis is caused
by the inflammation and enlargement
of the glans penis, preventing the return
of the prepuce; also by stricture, or contrac-
tion of the prepuce. - The frenum is
a longitudinal duplication of the skin
of the penis; - its contraction is cured by
division. - The prepuce is nothing but
a duplication of the skin of the penis;
this should be well understood in order
to operate successfully for paraphymo-
sis: - As a tight stricture, like a ligature,
is formed round the glans penis, it is
necessary to make the incision long & deep;
but we must not wound the elastic li-
gament. - Paraphymosis occurs in children
from drawing the prepuce over the glans
penis. - In venereal cases it is often neces-
sary to perform the operation: - After
incisions are made, owing to the taking
of Mercury, inflammation & stricture

have been again produced. Dr. W. has operated 5 or 6 times on the same person to prevent gangrene. Gonorrhoea has its seat in two places; - When it is seated in the glans at the extremity of the Urethra, it is easily cured. - An injection of the following, will generally cure. - ℞. White vitriol & gum arabic; 2 grains of the vitriol to an ounce of water, & a sufficient quantity of the gum. - Washing with soap-suds will sometimes prevent it. - No Ulcer is formed, as was formerly supposed. - When bougies do mischief by irritating, &c. they should be laid aside for a while. - When the Affection takes place higher up, use injections of sugar of lead & white vitriol, or sugar of lead and gum arabic. - An affection of the eyes is said to have been occasioned by a translation of the disease from the penis. - It is certain, violent ophthalmias, and loss of sight have occurred, but

but most frequently from the absurd prac-
 tice of washing the eyes with Urine, in
 time of a gonorrhoea. But from Dr.
 His own experience, he thinks it probable
 that this translation really does, at times,
 take place; though it is not to be explain-
 ed by Anatomy:—For instance, a delicate Lar-
 dy who was infected by her Husband;
 and in whom no external communi-
 cation of the virus took place. After
 injecting calomel, she was seized with
 violent ophthalmia. The Dr. not believ-
 ing in this translation, concluded it was
 owing to another cause; and ordered the
 calomel to be continued. Her eyes grew
 worse. The calomel was suspended &
 they got well; but not until the disease
 was again completely excited in the ^{next} day
 of generation, by the application of warm
 water, &c. The calomel was again used
 in disguise, and the ophthalmia return-
 ed! Injections of corrosive sublimate
 cure this disease by exciting another
 kind

kind of inflammation less dangerous
than the original one. - It is probable
gonorrhoea might be cured by the an-
tiphlogistic regimen alone. - Muscles
of the Anus exhibited. - Dr. W. thinks the
pain in Piles is owing to pressure
on the blood vessels. - Polypi also occur,
and give great pain from the same
cause. - Remedied by ligature. - A man
who had great pain after going to stool.

Jan. 26th. Lecture 60th. - Testes. - The
Tunica vaginalis is a thin, reflected co-
-vering. - The Albuginea, which is the proper
covering, is more firm. - The substance of
the testes is very vascular, and may be
drawn out into fine threads 6 inches long.
The vasa deferentia pass from the Epi-
-didymis to the vesiculae seminales. -
They are so convoluted at the Epididymis
that a puncture with a needle might
destroy the use of the testes forever; it
would

would wound so many parts of it. - This should not be told, lest evil-disposed people might do mischief in this way. - Swelled testicles occur frequently as a consequence of suppressed gonorrhoea, &c. It occurs but seldom until the decline of the gonorrhoea. De Haen was obliged to excite gonorrhoea 10 times before he cured the swelled testicle. When the testes are the least swelled they should be always suspended in a bandage.

Jan. 27th. Lect. 61st. - Inflammation of the Testes occurs from venereal, and other causes. - A short time before birth the testes pass from the Ischio muscles through the abdominal rings into the scrotum. - before it descends, it has a partial covering derived from the peritoneum, which afterwards becomes the Tunica vaginalis; and is a loose covering. - In its passage through the abdominal ring it carries down another portion of peritoneum - which after a few months loses its peritoneal nature, and becomes

that peculiar cellular substance, different from all other, which is found in the scrotum - being composed of firmer fibres - This opening in the abdominal ring afterwards closes. - Children are not unfrequently born with Hernia. In this case, the intestine is in the same sac with the testis - This is called Hernia congenita. - In the Hernia of Adults, a new sac is formed. This is a curious circumstance in the Animal Economy. - From the surface of the Tunica vaginalis a mucus is secreted for the lubrication of the parts - from an increased secretion of this mucus, or obstructions in the absorbents, the Hydrocele, or dropsy of the scrotum is produced. - Many methods of cure have been proposed for this disease - The most Ancient was to puncture and discharge the fluid

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fluid - but this must be repeated for life,
as it will still recur - See Gott, Hunter & Elves.
One method was to apply issues; This,
tho' effectual, was disagreeable - Another
by making an incision into the tunica
with a Scalpel - And another by caustics -
all these produce the same effect, with
different degrees of pain to the Patient.
The object is to excite inflammation in
the Tunica vaginalis, and cause it adhere
to the testis; which effectually prevents
the recurrence of the disease. - A better
mode was discovered and used in France
100 years ago; but which, the English,
through prejudice would not use - Un-
til Mr. Elves revived it. - It consists
in discharging the water by a Trocar,
and afterwards injecting Wine, or some
other stimulant to excite sufficient inflam-
mation. - In the course of three days the
inflammation subsides; & in 2 or 3
weeks a cure is effected. - P. 1 part

of Water & 2 of Wine - Let it remain
in for 10 Minutes - or until a good
deal of pain is excited. - Then draw it
off and inject Water alone. - If the
mixture should be too weak, inject
Wine alone, or Brandy. - The Dr. has
tried this Method, and highly recom-
mends it. - He never failed but once,
& then it was the fault of the Pa-
tient in not submitting to the pain
of the Wine. - Dr. W. expatiates with
increased excitement on the curious
effects of those important organs on
the body and mind. - The loss of one
Testicle does not affect the generative
faculty more than the loss of one eye
diminishes vision. - But the loss of
both produces an intire change in the
system. - That organs so remote from
the Brain should so affect it, is extraordi-
nary. - Dr. W. has castrated several, - but he
could not get much information from them.

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January 20th. Lecture 32nd. - Testes
Continued. - The septum between the Testes
is a duplication of the cellular substance.
Many Anatomists doubt the existence of the
Dartos Muscle; but Dr. W. contends that it
does exist, both from appearance & effect.
These muscular fibres possess powers differ-
ent from any others in the body - for in-
stance the effect of cold water in corrugating
the scrotum. - When relaxed it is perfectly
smooth. - The testes of Children are sometimes
drawn into the abdominal ring; - & Dr. W. has
had 2 cases of Adults, wherein one of the testes
has been drawn up - ordered bloodletting &
purgings to avert inflammation - & the
testicle returned to its place - One of them
was treated this way - Dr. W. thinks the
other will remain up for life - but
without any particular disadvantage.
- The operation for Hydrocele cannot
be performed with safety when the

enlargement is not greater than an orange, but after it becomes larger than the first, it should always be performed. It must not be performed at the bottom nor back part for obvious reasons. but in front. The trochar may be introduced with safety more than inch. Red wine, Madeira & water, or Brandy should be at hand. Although the inflammation generally subsides in 24 hours, it has continued 3 days without any disadvantage. A dropsy of the peritoneum sometimes occurs. The circocoele is a disease which has been too little attended to. It is a soft tumor of the scrotum. disappears upon pressure, but soon returns again. It is occasioned by the bloodvessels becoming varicose. Its peculiar appearance is owing to the convolution of bloodvessels. Tonic prevent further progress in the disease, but do not effect a radical cure. The functions are not impaired.

Jan'y. 29th. Lecture 63rd. - Heart - source of circulation. - This important viscus is the alphabet of Physiology. - It is necessary to be well acquainted with the circulation, and ready to answer any interrogatory respecting it at a moment's warning. - On this subject we must expect to be examined. - The blood passes from the two vena cava into the right auricle of the heart at different places. - The Valvula tricuspides prevent regurgitation, &c. - Upon those delicate valvules depend circulation, health, and life. - The celebrated John Hunter died in consequence of an ossification of them; which caused great palpitation, & finally death.

Jan'y. 31st. Lecture 64th. - Heart continued. The Auricles are thin & nearly transparent. King George 4th. died of the rupture of an auricle. - He dropt suddenly dead without any particular emotion of body or mind. - The heart does not appear to possess sensibility like other Muscles. Dr. W. had a case which he expected was an inflammation

inflammation of the Mediastinum. - But
the patient could not sit up - feeling
most easy when lying down. His respi-
ration was hurried and difficult. He
felt no pain during inspiration, nor
indeed any pain to signify. - pulse
full, quick, & tense. - Made use of co-
pious bloodletting, & the common re-
medies for Pneumony without effect.
The patient at length died; - & upon
dissection it was found to be an in-
flammation of the Heart. - The peri-
cardium contained half a pint of
clear mucus. - The surface of the heart
was covered thick with mucus; ex-
hibiting ~~very high~~ symptoms of
a very high grade of inflammation.
which extended very little from the
heart. - It would seem from this
case that the Heart does not possess
a large share of sensibility. —

February 1st. Lecture 65th. - Heart, as con-
 nected with the Lungs, Oesophagus, trachea, &c.
 The heart seems to be hung, or suspended over
 the left branch of the trachea by the Aorta.
 The air-cells of the ^{Lungs} cannot be well de-
 monstrated by injection - the partitions
 are so thin, it appears like an inorganic
 mass. - The trachea penetrates the Lungs
 & ramifies - each branch supplying a clus-
 ter of cells. - These branches are called
Bronchiae. - The Lungs are divided into
 two parts by the Mediastinum called
 the right & left Lung. - Each Lung is sub-
 divided into lobes the left into two -
 the right into three. - As the Mediasti-
num passes down, it inclines to the
 left side - its lamina dividing so as receive
 the heart & pericardium between them.
 The Apey of the heart is left bare,
 & strikes against the 6th rib. -
 The Mediastinum is merely a continu-
 ation, or reflexion of the Pleura -

Feb. 2nd. Lecture 66th. - Functions of the Lungs - Demonstration of the Inter-costal Muscles - Their mode of acting. In inflammation of the lungs, or pleura, lymph is effused; into which vessels elongate themselves - adhesion takes place, & the connecting medium becomes organic. - Dr. W. took a general view of the wonderful connections of the human body, and drew, as an inference, the absurdity of Atheism. - &c. &c. -

Feb. 3rd. Lecture 67th. - The Mechanical functions of the Lungs continued. Their Sinuses, &c. - The lungs in the thorax, may be compared to a bladder inclosed in a bellows. - intirely passive. - If a passage for the air were made on each side of the thorax, the lungs would remain collapsed, & death as from drowning quickly take place. - An ingenious surgeon has given directions exactly the
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reverse of right for discharging air from
the thorax. He directs the wound to be
closed during inspiration & vice versa.
The human lungs are of a dark, livid color.

It was formerly supposed that Consump-
tion of the lungs was a scrophulous af-
fection. But it has been found by dis-
section that very few lymphatics & con-
sequently glands exist in the Lungs.
The mucous glands are situated chiefly
at the beginning of the bronchia. The
Lungs possess but little sensibility; not
sufficient to give notice of the danger
of the diseases that occur there. The
Acute pain ^{in pneumonia} is supposed by Dr. Monro to be
seated in the intercostal muscles which are
connected with the pleura. Tubercles the
cause of consumption? This disease is
still one of the opprobria medicorum.
On this disease, see Stark & Farrier. Dr.
It is of opinion that the dry cough almost

uniformly announces the existence of
tubercles. That the tubercles upon sup-
puration pour their contents into the
bronchial vessels, & expectoration be-
gins. sometimes, indeed, a large abscess
is formed, which suddenly bursts; & ei-
ther strangles the patient immediately,
or induces great debility which destroys
him in a short time. Dr. M. highly
recommends the Digitalis in the cure
of this formidable disease; - but ac-
knowledges that where it does no
good, it rather does harm by increasing
the debility which attends it. - It has
succeeded with him in a few cases;
he therefore recommends it to us. -
He thinks it has a specific effect
upon the heart & arteries in lessening
the frequency of the pulse, which no
other medicine we know is possessed of.

Feb. 4th. Lecture 60th. - Trachea, La-
rynx, Cricoid & Thyroid cartilages. - The lungs
 always contain a quantity of air - even after
 death. - The back part of the ~~Trachea~~ ^{Trachea} which
 lays in contact with the Oesophagus is
 destitute of cartilage in order that de-
 glutation may be performed with more
 facility. - This canal like the spine bends
 in a curve from its structure & not in
 an angle. - The cartilages of the Larynx
 are 5 - the Cricoid, Thyroid, 2 Arytanoid,
 & the Epiglottis. - The ventricles of Morgagni
 lie within the glottis, just below the
 root of the epiglottis - small pieces of Money,
 &c. sometimes lodge in them: producing very
 disagreeable sensations & violent coughing. -
 They have been discharged after having
 lain there above a year - when all
 the disagreeable symptoms ceased.
 Abscesses sometimes form in the lungs of
 which the patients are not aware - as
 pain in the breast does not always occur.

Feb. 5th. Lecture, 69th. — Trachea &c.
continued. — There are several small mus-
cles of the larynx which contribute to
the various modifications & modulations
of the voice. — The organs of speech are
withal simple. — Physiologists have
differed in opinion respecting the prin-
ciples of voice & speech. — Some contend
that the larynx acts upon the prin-
ciples of a stringed Instrument. Others
that of a wind Instrument. — Dr. W.
thinks the Truth lies between both. —
We should never talk & eat at the
same time, for evident reasons. —
Heavy substances are most liable to
fall into the glottis, as small pieces of
money &c. — The laryngeal & abdominal
muscles take on an involuntary ac-
tion instantly on the irritation of the
Trachea. — Large quantities of mucus are
secreted and retained in the Trachea ^{without}

without irritation; and yet a single drop
of the purest water would induce vio-
lent coughing!—The Os Hyoides is the
basis or lever of the tongue; it has 2
bony appendages which are seldom no-
ticed by Anatomists.—The processes of the
Thyroid cartilage are attached to
the os hyoides.— &c. &c. &c. &c. &c. &c.

Feb. 7th. Lecture 70th. - The squeaking noise that occurs in chincough & croup is owing to the contractions of the muscles of the Larynx closing the rima. - Croup, or Cyranche trachealis, is the effect of inflammation, & consequent effusion in the Trachea. When a hoarseness and an extensive pain occurs in the Trachea, danger is to be apprehended. Bronchotomy should be performed when there is danger of suffocation; by this mean immediate danger is suspended until the offending mucus can be removed.

moved. The operation should be performed with a double trochar? just below the cricoid cartilage, in front. We had a good view of the thyroid glands situated on the thyroid cartilages on each side. An eye must be had to them in the operation of Bronchotomy. The cavity of the Abdomen was again opened to show us the situation of the viscera. Manner of judging of their diseases, &c. The Liver in its natural state does not extend below the ribs; nor can it be felt except just at the xiph. cordis. When enlarged it may be felt proceeding from under the ribs. In all the examinations, the head & shoulders should be raised & the knees drawn up so as to relax the muscles. The spleen will be sometimes more enlarged than the Liver; - In order not to mistake it for that viscus, we should trace it to its origin from the left side.

It is difficult to feel an enlargement of the Pancreas. - In a case which Dr. Wistar had, the patient complained of acute pressure when laying on his back; this was from the stomach pressing on it. - When he leaned forward, relief was obtained from the stomach projecting over it. - Sometimes we are consulted in imaginary cases - Thin, spare Ladies, who have had nothing else to do, have found tumors on each side: - Upon examination they proved to be the Thi: neys! All that is necessary to be done is to tell them that nothing ails them, & they immediately recover! - In delicate habits, also, a pulsation may be felt, or throbbing from the ver: tricus Cordis to the Pubes - This is the pulsation of the Aorta, which is communicated to the parietes of the abdomen.

Feb. 8th. Lecture 7th. - The right leg & hip, &c. were removed to give a view of the bladder, rectum, &c. in their natural situation; and to explain the manner of introducing the catheter. - We had also a view of the levator & sphincter ^{ani} Muscles - spermatic cord - bulb of Urethra &c. The bulb of the Urethra is quite a dark red in its natural state. - The prostate gland adheres all round the neck of the bladder. - between the prostate & the bulb is the membranous portion. - The flexible catheter is much preferable to the silver one - but as the former is liable to be impaired, we ought to have a silver one to have recourse to in urgent cases. The introduction of the Catheter requires great care - We should never use force. The penis should be drawn upwards and forwards; it lessens the curve & facilitates the passage of the Catheter.

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The instrument may be felt in the Urethra until it arrives at the curve at the Pubis;—after which, if it should be obstructed, the finger should be introduced into the Anus, & by pressing against it, the obstruction will frequently be removed.—Or it may be overcome by drawing the catheter back & making repeated gentle efforts.—Inflammation is what generally renders the operation necessary;—& in inflammation, copious Injection / 1893. or so/ will frequently relieve without having recourse to the Catheter. If not, it must be used.—The best kind of Catheters, which are made of elastic gum, become too flexible by use; in this case, a catgut should be introduced in it.—There is little danger of a genuine flexible catheter being pushed through the Urethra.—The Levator Ani draws the rectum over the feces like pulling on a stocking.

Feb. 9th. 72nd. Lecture. — Inflammation of the neck of the Bladder is one of the most painful & distressing maladies to which human nature is subject. — The bladder is sometimes so distended as to fill the greater part of the abdominal cavity; — if neglected it at length bursts & death is the inevitable consequence. — When the catheter cannot be introduced, the bladder has been punctured through the rectum, and above the pubes. — The best way is to puncture above the pubes with a curved Instrument. The operation should not be performed unless the distention be great — & then the peritoneum will be so raised as not to be wounded. — The Instrument may then be introduced 3 or 4 inches without danger of injuring the back part of the bladder or other parts. — A

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A catheter with a fine, flexible point
has passed through the stricture when the
common one has failed. —

Feb. 11th. At one O'clock P.M. this day,
Dr. Wistar delivered an excellent Oration be-
fore the Medical Society. (Annual Oration.)
The subject was, a view of the effects of
the state of the body upon the Mind. —

Feb. 12th. Lecture 73rd. — Structures in
the Urethra — Fistula in Perineo — in
Ano — &c. Structures frequently occur, &
from various causes. — Those who sit long
in an assembly next to a wall will be
likely to have a tendency to stricture,
and be long in evacuating their Urine.
Bougies will generally relieve it. — In
a case wherein the patient suffered great
pain Dr. Shippen introduced the Lil-
ver Catheter — near the neck of the bladder
resistance was made, but the Dr. forced
it in, and a discharge of bloody Urine

took place, which gave reason to suspect he had wounded the prostate, or some contiguous part. - But the patient was happily relieved & no bad consequences ensued. - By the introduction of the bougie, Dr. W. completely relieved a patient who had not discharged his urine with ease for many years. - When a stricture exists, the urine, instead of flowing to a distance, falls down from the end of the penis. - Where the bougie by itself failed, Mr. Hunter used caustic at the end of it, with success. - It requires some nicety in fixing the caustic so as to be clear of danger. A flexible catheter is introduced and the bougie passed through it? The consequence of a perforated urethra, or the want of success in removing stricture, is a fistula in perineo.

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Perineo. It is vain to pretend to heal the fistula when formed, without first removing the stricture. - An ingenious young physician, Dr. Shaw of Philadelphia, has frequently been successful in removing stricture by wrapping a leaf of Tobacco nicely round the bougie & introducing to the part. In cases of mere rigid contractions of the fibres this seems to be a rational practice. -

After the stricture is removed, the ulcer in perineo may be laid open & healed.

Horne on Strictures should be read. -

Pott, and Desault on Fistula. - When the ulcer opens both externally & internally in Fistula in ano, it is called a complete fistula. - Mr. Pott's method of operating for this, should be preferred. He introduces his finger in ano - director in fistula - bistouri in director until it meets the finger - & then cuts out. Desault used wires of lead - carried through the fistula & out at the anus - & twisted a little every day. -

Feb. 14th. Lecture 74th. - The operation of Lithotomy was performed on the dead subject. - The grooved director was introduced into the bladder. - The incision was made upon it in the perineum, beginning at the insertion of the scrotum, and continuing down rather obliquely to the left of the Anus. Having cut upon the director through the membranous portion of the Urethra, the button of the gorget is placed in the groove of the Urethra. - The cutting edge looks laterally. - & in this situation it is pushed into the bladder. - The director & gorget are withdrawn, & the finger introduced into the bladder. - (The finger is introduced before the director is withdrawn; it serves as a guide to the finger). - Along the finger are introduced the forceps for extracting the stone.

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If the stone be broken during the extraction, a mucilaginous liquid, as barley water, should be injected to bring away the pieces; which otherwise would serve as nuclei for future calculi. - The ^{wound} should be anointed with cream to prevent the irritation of the urine; & then closed. - The urine which occasions ulcers of the cellular membrane will not prevent the healing of external wounds. The wound in this case heals very soon. The urine passes through it until it heals. In children, it sometimes heals so speedily, that in 3 days the urine has passed the natural way. In adults and old people from 3 to 6 weeks. If inflammation occur in the bladder, pain is felt just above the pubes. Emollients should then be applied. - This is an important, but simple operation. In 99 cases in 100 it relieves the patient of a terrible malady.

malady, without the long continuance of pain. Agitation of mind is what chiefly renders the operation dangerous. From the position of the patient, the course of the Urethra from the place of incision to the bladder is nearly horizontal; or, at least straight. - Previous to the operation, the rectum should be well evacuated by clyster; & if possible, the bladder should be moderately distended with Urine. -

Feby 15th. Lecture 75th. - Lithotomy

continued. - If the cutting gorget slip out of the director, it will be very likely to wound either the rectum or vericula seminales.

The operation might be performed perhaps with safety through the rectum.

A man once lived 30 years with a communication between the bladder and rectum - he sometimes discharged feces with his Urine and vice versa. - The

The operation has been performed on Females through the vagina with success. - Stones of considerable size have been discharged through the urethra in females. Lecture concluded with some remarks on the nose. its communication with the eye, &c. - on the Antium Maxillare, &c. introductory to an important subject. - February 16th. Lecture 76th. - Pharynx, Velum pendulum palati, Tonsil glands, &c. - The pharynx, or top of the gullet, is 2 inches or more in diameter; whereas the gullet itself is not more than one, though capable of considerable dilatation. - Food sometimes lodges at the root of the tongue, producing irritation, which the patient knows not the seat of. From a debilitated state of the Epiglottic cartilage, it falls down & will not rise; producing suffocative sensations. When substances lodge in the Pharynx or Oesophagus, the Probing is a safe & effectual instrument in

pushing them into the stomach. To pass the probang with safety, it should be passed quickly over the epiglottis to the back part of the throat & down a little into the gullet - after that it passes without irritation. - In cases of inflammation of the glottis, Dr. Despaux passed a tube through the nostrils, & down the throat; through which he injected aliment / liquid / into the stomach. Dr. W. does not recommend this much, as it is apt to aggravate the inflammation. However, where a tube is necessary for the sustenance of the patient, it is proper to pass it through the nose, when it irritates by the mouth. - Though Bronchotomy is to be had recourse to in some cases where the irritation is very great. For the extraction of Polypi Dr. W. recommends ligatures which generally succeed.

Feby 17th. Lecture 77th. To-day we had a
 view & explanation of the Lithotome caché. It does
 not cut until the instrument is withdrawing.
 If the blade were continued to cut laterally,
 Dr. W. thinks it would be a safe instrument.
Tonsil glands.— These are sometimes ostery
 inflamed, and appear as though they were
 ulcerated; but in most cases the supposed
 ulcers are the excretory ducts round which
 purulent looking matter is deposited. In
 this case, a gargle of Alum water, sage tea
 & honey, &c, will remove every morbid ap-
 pearance. When it is necessary to puncture
 the tonsils, it may be done conveniently
 by extending a lancet & wrapping some-
 thing round it to the point & over the
 joint to prevent it from bending. The
 french have contrived a concealed lancet
 which is very convenient. The ton-
 sils sometimes become enlarged & greatly
 impede deglutition. If they are cut off, a
 disagreeable hemorrhage is apt to ensue,
 which incommodes the glottis very much.

The best way of removing them is by li-
gature. - Dr. W. recommends cutting off the
ligature close to the knot instead of letting
it hang out of the mouth: - but would
it not be apt to irritate the parts adja-
cent? - The soft palate acts like a valve
to both the passages - mouth & nose.
In sneezing it closes the passage thro'
the mouth - & in vomiting that of
the nose. - In scarlatina the tonsils
are often much inflamed, &c. -

February 13th. Lecture 78th. - Eu-
stachian tube - This tube is of con-
siderable importance in complete hear-
ing. - It is often clogged with mucus
in consequence of cold. Which very
much affects hearing. - A canula
may be introduced into the orifice, &
a mild fluid injected to clear it out.
but the best way is to close the mouth
and nose & make a forcible expiration.

This mode has often been used with success; and when the tube is clear, a painful sensation is felt owing to the distention of the Tympanic membrane. The best method of extracting large polypus from the nose, is by means of a silken ligature - 4 double & waxed stiff, so that it will pass up double through the nares till it pass into the throat. When it appears at the posterior nares it may be readily fixed round the polypus. The ends of the ligature should be drawn through a Canula - & gradually tightened until it drop off. - 10 days at most, are sufficient for its extraction. - By the paleness of the tumor, you may judge of its progressing right. Wire is not so good as thread - it is apt to break. Dr. W. had a case in which ^{also a case where the polypus after it was cut off nearly} the wire broke, ^{hung upon the Epiglottis} & had nearly caused suffocation -

In this state, Dr. W. thrust in his hand & brought it out, which gave immediate relief. We should always have our forceps with us upon these occasions. The Doctor related another case in which wire was used, where it so irritated as to bring on fits which proved fatal - since that he always used thread. - In extracting with the forceps we should take a firm hold, and twist until it comes away. The forceps should be strong. - No bad consequence results from taking out a portion of the turbinated bone. - It is not best to attempt extraction if very small. - Polypi sometimes originate in the Anterior Sphenoidal sinus. - by their pressure they cause absorption of the bone - protrude the eye, &c. &c. - They may be got at sometimes by extracting two or three teeth. It has been proposed to trepan the Superior Maxillary bone, & extirpate in that way. - But I suspect it must be a disagreeable operation. Mostly die -

February 19th. Lecture 79th. - Mouth
and teeth - The skin on the inside of
 the mouth is a continuation of the
 skin on the external part of the body.
 It only differs from it in texture. On
 the lips it is called Epithelium. The epi-
 thelium answers to the epidermis on
 the other parts of the body. - The sub-
 stance of the gums has been likened to
 the texture of a hat - it is so spongy &
 but there is no doubt of its complete
 vascularity. - Teeth. There are 4 incisives
 in each jaw - 2 Canini, or cuspidati - 4 bicuspides
 or small molars. & 6 large molars, or grindas.
 The necks & roots of the Teeth are formed ex-
 clusively of bony matter. The crown, or
 part above the gums is covered with a
 very hard, white substance; called Enamel.
 The enamel is very durable unless corro-
 ded

corroded by acids. It is intirely inorganic, and supposed to be formed by a chemical process. It is formed of a ~~concrete~~ secreted calcareous matter, which concretes somewhat similar to an eggshell - & effectually prevents the further growth of the tooth. - The acids corrode this enamel; & hence one great cause of the decay of teeth. - They are also injured by neglecting to wash them after eating. &c. - As the women are very particular on the subject of dentition, we should be prepared to answer all their Interrogatories. - At from 4 to 8 months, the teeth begin to make their appearance. The 2 middle incisivi of the lower jaw generally appear first. Then the 2 apiculate in the upper jaw. Next, in the same order, appear the second pair of incisives. After the incisives have all appeared, the Bicuspides come next.

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before the eyeteeth, leaving a space for those important teeth, which appear after the bicuspidates - When the cuspidati are completely through - The women think their children quite safe. - After these come the Molars in the same successive manner. - The diseases of dentition, viz. fever, convulsions, diarrhoea, &c. may be greatly relieved, or averted by cutting the gums with a lancet. - The eye is sometimes affected by the canine teeth. - The Molars of the upper jaw have very branching roots, because the Anterior would not afford firm hold did they run straight up. - It has been said, that the new teeth force the old ones out of their sockets. - But this is not the fact; as St. W. has proved to us by several specimens. - The new teeth come out by the side of the old in separate sockets. - The sockets of the old teeth are absorbed, & they fall out. - The teeth appear to be formed of layers

of bone - The head or crown is first formed, and the root grows afterwards - The external layer is first formed; is a membrane which afterwards hardens, or ossifies - is nourished by an artery & veins - is supplied with a nerve - On this membrane is secreted, or deposited the enamel - It is then filled up with internal opacous layers, somewhat in this manner -  - When the external is completely filled, the artery and vein disappear; but the nerve continues, - passing up through a small foramen in the root of the tooth - There is nerve to every root - The structure of the teeth has been made a criterion to judge of the food of the animal - In most graminivorous, or herbivorous animals, the enamel is thin, & pervades the body of the tooth in undulated streaks when viewed from the top, - i.e. in a horizontal section - While Carnivorous

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Animals have only the external part of their teeth covered by enamel - & that in a thick coat. By this criterion, the Mammoth is ranked among Carnivorous Animals; and consequently separated from the Elephant. But the ingenious and truly literate Professor, Barton, thinks this criterion is fallacious; and believes the Mammoth is a species of Elephant. - Though Dr. Wistar is of a contrary opinion. - When the teeth are about to appear in children, the gums have a red, cherry-like appearance.

February 21st. Lecture 30th. - Ear. -

The parts of the Ear, are the external ear; the external meatus; the Membrana tympani; the cavity, or tympanum; the internal Meatus; Malleus; incus; os orbiculare; Stapes; Vestibulum; - semicircular canals; & concha; - The Malleus is in contact with the tympanum, & by its connections conveys sounds, or vibrations to the Auditory ^{nerve}

nerves in the vestibule, &c. - A fine trans-
parent fluid is contained in the vestibule
& semicircular canals, which is the medium
of sound ^{or in contact with} next to the nerves. Correct hearing
depends upon the healthy state of this fluid; -
deafness has been caused by this fluid be-
coming thick & "cheesy". - The Membrana
Tympani is not essential to hearing - per-
sons have heard tolerably after it was
lacerated. - This membrane is extremely
delicate and susceptible of inflamma-
tion - If only touched with a probe, it
will bleed. - In order to have a view of it,
the ear should be pulled out from the
head, and turned to the light; after
the sun has passed the Meridian. -

The best way of getting foreign sub-
stances out of the ear, is to inject some
warm, mild fluid, as milk & water, to
wash them out. - By attempting to ex-
tract substances from the ears of children
with forceps, as beans, coffee, &c. The whole

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whole neighborhood has been rained with their
cries. A very common cause of deafness
is an accumulation of hardened wax
in consequence of violent colds. - & the
best way of relieving it, is by repeated
injections - even 20 or 30 of them. - St. W. has
taken out pieces of wax as thick as his
little finger, which had completely plug-
ged the external meatus. - This cumen
is the second Animal bitter - bile is the other.
It is calculated by its bitterness, & wax-like
texture, or consistence, to guard the ear a-
gainst insects, &c. - If insects cannot be re-
moved by the forceps, oils should be inject-
ed &c. - The mastoid process is full of cavities
communicating with the ear - A perforation
has been made here by a German Surgeon
in certain cases of deafness - hearing was re-
stored; but the parts mortifying both times
of trial; the practice was given up. -
We had but one lecture upon the Ear. -

Feb. 23rd. Lecture 81st. - Eye. - The coats of the eye are, ^{the conjunctiva} the Sclerotica, Chorioidea, Retina, Arachnoidea, Cornea transparens, Iris, and the capsule of the Crystalline lens - The Iris is a part of the Chorioidea - as the Cornea is supposed to be distinct - It is so in the whole - Cornea transparens is a part of the Sclerotica - The humors, are the Aqueous, the Crystalline lens, & vitreous. - The eye contains two chambers, the partition of which is the Iris. - The eye is the organ from which we derive the greatest pleasure. —

Feb. 24th. Lecture 82nd. - Muscles of the Eye. - Recti & oblique - The operations of Couching, & extracting the Cataract, are simple, if the Surgeon only have confidence in himself, & a steady hand - Couching is to be preferred in nervous habits who have not resolution nor command of the eye - As the eye in couching is secured by a speculum - In this operation, the want of success is often owing to the haste of the Surgeon in withdrawing his Instrument

too soon. The great success of several Operators appears to be owing intirely to their deliberation in completely depressing the Crystalline Lens. Dr. W. has operated with ~~with~~ the broad needle, but thinks the round one not inferior to it. ^{not so liable to irritate the iris} The needle must be passed in to the substance of the lens. In extracting the Cataract, the Assistant should press the palpebra up against the Os frontis, & not against the ball of the eye. The broad needle should then be introduced, from the external Canthus, ^{before the iris} and pushed suddenly ^{opposite side of the corner, making a semicircular incision} by the fingers to the ~~largest~~ ^{cutting} ~~lens~~, cutting out below. The round sharp-pointed needle should then be used to lacerate the capsule of the lens; (or extract it intire, if possible?) after which the eye should be gently squeezed, & the lens will fall out. Great care must be taken to not press too hard, or the vitreous humor will also come out. The capsule, when lacerated, sometimes

remains behind, and occasional blindness.
It should also be withdrawn. The greatest
care must be taken to avoid inflam-
-mation, which is apt to occur on
the third day. The patient should be
kept, at least, a fortnight without the
stimulus of light and on a low diet.
Too much light, in performing this
operation, will prevent you from
seeing. On a clear day, the North
side of a house will be best; for when
it is too strong, it will be reflected
from the retina and deceive you.
To determine whether blindness be oc-
-casioned by the opacity of the Lens,
examine the eye at about 3 feet
distance from the patient. If the lens
then appear opaque, you may ven-
-ture to decide upon it. If not, you
will have reason to suspect another
cause,

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cause; as a paralysis of the optic nerve,
&c. In case of blindness from opacity,
the black color of the pupil is generally
completely changed to whitish. — — —

Feb. 25th. Lecture 33rd. — In cases of
complete blindness, where little or no
opacity is to be observed, we have every
reason to suspect Gutta Serena; or that
blindness which is caused by a paralysis
of the optic nerve. — There is a danger
of being deceived here by the reflection
of light from the retina, unless viewed
at the distance of about 3 feet. —
In true Gutta Serena, the eye has its
natural appearance. — Cayenne Pepper
has cured it; as for instance in a negro
man who used it accidentally, &c. In
cases where the brain is not affected,
such stimulating remedies are most
proper — also Electricity, &c. — Fistula
Lachrymalis — The best method of op-
erating in this disease, is to perforate the

the Os Unguis, and place in a bougie till a channel is formed. All the difficulty is to find this bone. It is known by the ease with which it is perforated. To be certain that the operation was performed right, a little milk should be injected, which will issue through the nostril. - After the first formation of this disease from obstruction, before suppuration, it may generally be cured, or kept at least stationary, merely by pressing the tears from the sac. - By purging & low diet, & a salivation it may frequently be cured - even after the sac has ulcerated. - The introduction of gold wires, &c. along the duct is precarious.

Feb'y 26th. Lecture 84th. - Brain.
By Dr. Thrippen. - For your consolation, Gentlemen, (said this humorous Professor,) the brain is but little understood; - It may therefore serve as a fruitful

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field for you to make discoveries in. —
There are many curious contrivances
here, the uses of which are unknown
to us, but which the Great Architect
did not construct in vain. — In the
ventricles of the brain there is a fluid
secreted, which if not absorbed as fast
as secreted, causes Hydrocephalus Internus,
a disease which is seldom cured. — The
external part of the brain, is called
the Cortical part. — The internal, Medul-
lary. — The distinction is made by a dif-
ference in color. — There are 9 pairs
of nerves which immediately pass
from the brain — &c. &c. &c. —

Feb. 28th. Lecture 35th. — Diseases of the
Brain. — In some cases of Hydrocephalus,
the head becomes enlarged to twice or thrice
its natural size — from the pressure of the
Water, while the bones are in a yielding
state — but what is more surprising, is
the total dissolution of the mass of brain.

without the loss of the cerebral faculties.
Dr. W. related the case of a child of 5 years of
Age, whose head was twice the size of an
Adult. The child was so far from being
deficient in Intellect, that the loss of it
was a subject of deep regret to its parents.
Its death was occasioned by its head falling
from the table where it was supported,
through an accident in moving the Table.
It broke a small portion of bone which
was left, & the child soon died in con-
vulsions. On dissection, nothing was found
but a thin, tough membrane, inclosing
Water. The membrane was so fine & thin
as to resemble wet paper. — It is of
great consequence to distinguish between
Compression, Concussion, & Effusion, —
as they each occasion the same symp-
toms and effects. — The operation of tre-
panning should always be performed,
as the only mean of preserving life
in cases of Compression. — The fractured parts

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parts of the skull should be removed if
possible; as no disadvantage will arise
therefrom - & they might do mischief if
suffered to remain. - Concussion alone
will sometimes rupture blood vessels,
when there is no fracture, nor external
mark of violence. - In these cases, a
strict examination should be made
with the fingers for the part injured;
and even if it be not found, and a
loss of sensation, and motion, with ster-
torious breathing continue, the opera-
tion should be performed. - The
Effusion is sometimes between the Dura
& Pia Mater; in which case it is great
importance to get it out, & avoid inflam-
mation. - The dura Mater must be
punctured & the fluid discharged,
or Death will be the consequence. -
The danger of operating, is greater in
some parts of the head than others:
but

but, as the only chance of Life depends upon it, the operation should be performed in any part when required. In no part of the body, is the Art of Surgery more effectual in saving life, than in those diseases of the head, which require the Trepan. — Death is frequently the consequence of blows on the head — when they are neglected. — A soreness will continue, till at length Inflammation from a trifling effusion is produced; and a sense of tightness, like a ligature round the brain is felt. — In this state, the most copious bloodletting — determined purging — & strict Antiphlogistic regimen must be used; — & it will generally relieve. — For more general & complete information on this subject, consult the Works of Mr. Pott. The operation of the Trepan was performed on the dead subject before us. —

March 1st. Lecture 8 6th. - Diseases of the
Head, continued - Ophthalmia - &c. &c. From
 hard blows upon one side of the head, Fig-
ures are produced on the other - but
 in cases of fissure without compression, the
 operation of the Trepan is unnecessary - A fis-
 sure was produced in the cranium of a
 young Lady, by a rafter falling on it from
 a four-story House. It extended from the os Frontis
 to the occiput, & also into the parietal bones. - On
 removing the scalp, the fissure was discovered so
 large that Dr. W. could introduce his probe -
 by this mean, the little blood accumulated
 was discharged outwardly. This gave some re-
 lief; and in a short time she completely re-
 covered; - the scalp united in about 6 weeks.
 Dr. W. intends soon to perforate the Membrana
 tympani, in a case of deafness from Scarlatina,
 which terminated in suppuration of the inter-
 nal parts of the Ear - and left it dry like a
 board; i.e. Memb. Tympani. / he doubts not of success, &c.

Ophthalmia, when neglected, may produce opacity and blindness; and as it is a very common disease, it should by no means be treated with carelessness. When owing to foreign matter, and the general habit is not affected by it, removing the cause is the chief that is necessary;—but when connected with a febrile state of the system, the most powerful depletion, & strict Anti-phlogistic regimen is requisite.—The loss, however, of a few drops of blood from the eye will be of more avail—because the eye is so far removed from the general circulation.—From 3 to 20 drops may be procured by scarifying the vessels on the sclerotica with a sharp lancet.—

Animation—Boyle supposed the principle of animal ^{Life} to be derived immediately from the soul.—But Haller contended that if such were the fact, the soul must be a substance capable of being dissected.—For dis-

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dissected portions of recently killed animals,
or living animals, retained their contractile
power a considerable time - Whytt's notion was
soon rejected upon the promulgation of Haller's
Argument. The examination of Animal life
in its lowest grades, first tended to throw
light on the subject; tho' still little understood.
It was soon found that brain & nerves
were appendages calculated for the high-
est grades of sensation; and not essential
to life. &c. - The most general & least exception-
able criterion for distinguishing Animals
from vegetables, yet known, is the Stomach:
though this is not altogether satisfactory; for
some animals, if they have a stomach, are
all stomach, as the Hydatids. &c. —

March 2nd. Lecture 8th. — Animation,
&c. — The Arteries possess an Elasticity - and
are operated upon by the blood, in a simi-
lar manner with the pipes by the water
in a fire engine - Dr. W. thinks they bound,
or change their place upon every pulsation.

pulsation. — The veins also possess a contractile power; as is instanced in the diminution of their diameters upon the unsuccessful application of the lancet. The blood seems to possess a specific vital principle, peculiar to itself. — Dr. W. when a student, made the following experiment upon some Calves. — The Carotid Artery of one was opened, & the jugular of another — with a tube he conducted the blood of the former into the latter, until the former was well-nigh exhausted. The latter appeared but little affected by it. — He then drew the blood of a third calf into the vessels of the exhausted one, & it soon recovered. — He injected Milk into the ^{artery} veins of the third, which soon reaching the heart produced a few violent palpitations, & then ceased forever! — Respiration — On this subject see Goodwyn — A portion of Oxygen is essential to health.

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health and life; - as is proved in those per-
sons, in whom, from mal-organization, no
blood, or but a small portion, passes thro'
the lungs. - They are pale & breathe with
difficulty. &c. - Secretion. - How this is perform-
ed, or what particular operation takes
place, so as to produce the different liquors
secreted, Dr. M. does not pretend to say; but
from the extreme vascularity of the glands
it would appear that a change is effected
during the minute division of the globules
of blood in the small extremities of the Arteries,
either chemically, or by a specific action
of the vessels themselves. - The exact manner
in which Growth, or restitution of parts
is effected has not been satisfactorily explain-
ed. - There is a disposition in the living body
for repairing injuries, and restoring destroy-
ed parts. - When bones are broken, or mus-
cles lacerated, coagulable lymph is poured
out, which serves as a nidus, through which
new vessels elongate themselves until the

whole becomes organic. - In this manner
Wounds heal by the first intention - a
secretion of lymph serving as a medium
for the new vessels. - The suppurative
inflammation is a grade higher than
the adhesive, producing pus, after which
granulations arise, which are small
vessels containing lymph. - If a wound
have not healed by the first intention,
Suppuration is the sine qua non of
cicatization. Dr. Priestley has proved
that the blood may be oxygenated thro.
a membrane, by his experiment with
sheep's blood confined in a bladder, and
exposed to oxygenous gas. - Death, from
hanging, drowning, &c. is now proved, or
thought proved, to be owing to defect of ox-
ygenation - vide Goodwyn, Oswald's Thesis, &c. &c.
The oxy-muriatic acid gas has lately been
found to revive drowned, &c. animals / as
Rats / very soon. - It is pernicious in a state of health.

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March 3rd. Lecture 88th.— The process of Healing has been divided into three kinds; viz. 1. Adhesive Inflammation, when the wounds heal by the first intention.— 2. Suppurative Inflammation, when pus is formed, & succeeded by granulations.— 3. Ulcerative Inflammation, or that suppurative process which is attended with an absorption of the adjacent parts at the same time, particularly towards the surface in deep-seated sores?— Inflammation is essential to the production of new parts.— For the formation of bone, matter is recruited from bone — for tendon, from tendon — for muscle, from muscle, &c.— The less vascular the part, the slower is the process; and the more dangerous the injury to such part; as for instance, the exfoliation of bones, and the sloughing of tendons.— Vide Hunter, on the blood.

Fractures— From the disposition that bones have of uniting, and accommodating themselves to the nature of the case, &c. M. Hunter was led to adopt the opinion of Stahl, that an intelligent principle was seated in every part.

part of the Body, &c. - Dr. W. rejects this, but cannot account for the fact. - Let the derangement be ever so great, a body of callus will be formed so as to produce an equality of strength. - Sound parts are absorbed for the support of the weaker, &c. - In reducing Fractures, the first thing to be attended to is the Mechanical Arrangement. - secondly, the Application of bandages, &c. - and lastly, guarding against Inflammation, & its consequences. - In fractures of the forearm, care must be taken to keep the Radius & Ulna in their natural & parallel positions. - not to let them decussate. -

Soft substances should be applied, as layers of tow, next to the skin, over which lay splinters as long as the bones, or longer, one on each flat surface, and if the Ulna be broken near the wrist, as it frequently is, a narrow one should be laid along its edge. - Pressure should always be ^{made}

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made on the sound ends of the bones with
the bandages; not only as the best means
of keeping them in their places, but to
avoid irritation and inflammation of the
injured parts.—Light bandages, and short
splints are very injurious—The broken
end of the radius is apt to be pressed in
without care, and the end of the Ulna down
—The tendons thus strained, subject to Rheu-
matism.—In fractures of the femur, Jessau's
Method is to be preferred—The external splint
reaching from above the ilium, a consider-
able distance below the foot—The internal
one not so long—A bandage round the ab-
domen and over the head of the external
splint—another round the thigh, close to
the body, and over the head of the splint,
which keeps it firm.—Between the splints
and the leg should be a long bag or cushion
of chaff, or cut straw, rather better than half
full—to prevent the splints from press-
ing the leg—and accommodated to the
various curvatures of the leg. &c.—A bandage

along the whole length of leg & thigh, &
adapted to support the sole of the foot.
The care of the Surgeon should not stop
here—Inflammation must be attended
to, particularly when the accident occurs
in a fit of Intoxication. &c.—Large & repeat-
ed bleedings, according to circumstances.
When an oozing of a white or bluish
fluid commences on the surface, great
danger is to be apprehended.—Tomenta-
tions must then be applied with great
diligence—Bitter herbs—spirits—&c. ap-
plied every 10 minutes for 2 or 3 days—
By this kind of application, varied
according to circumstances, Dr. M. has
been almost uniformly successful—
In fractures of the leg, some have re-
commended a flex position, or relax-
ation of the muscles—They may be
sometimes very proper—& also, with care,
in fractures of the thigh, when the mus-
cles are much lacerated—Without care
in this case, the patient will be knock-kneed—

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Auspicious 4th. of March! Lecture 89th.—

The treatment of Fractures must be regulated by the situations in which they occur. Much mischief arises from short & tight splints. The great object is to keep still, & apply as few bandages as possible. — For a fractured clavicle, apply a bandage round each shoulder connected behind by a strap with a buckle to keep the shoulders extended, and the bones in apposition — Or the bandage in form of the figure 8. — For a fractured rib, a broad bandage round the chest, and stillness. &c. — Cutis — is a membrane composed of 3 layers, or parts, covering the whole surface of the body. — It is composed of the cutis vera, or true skin — the Cuticle, or external coat, — and an interstitial mucous network, called Rete Mucosum. — The Rete Mucosum is the seat of color — is a soft pigment which adheres to the epidermis, or cuticle. — It is nearly transparent in Europeans, while in Africans it is black. — The Europeans are

fair, - the Africans black, - the Americans
copper-colored, - and the Asiatics yellow.
Notwithstanding this variety in color, Dr.
W. thinks that Climate does not satis-
-factorily account for the difference.
He examined several negroes, the descen-
-dants of those who were contemporary
with Mr Penn, and, though he acknow-
-ledges several of them were changed both
in color and features, yet others, & one
in particular, perfectly retained the color
and features of the African; - hence he
infers, that the phenomena of color are
not yet completely understood. Another
mystery is, how the black color of the
negroes enables them to endure heat.
better than other colors; when it is known
that black has the greatest attraction
for heat of any other color - as is proved
by Dr. Franklin's experiment - & by expo-
-sing a thermometer to the sun with
different

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different colored rags round the bulb. &c.
There was a Negro in Philadelphia, some
time since, who from some strange pro-
cess, became white in certain parts of
his body - but what became of the pig-
mentum nigrum is unknown; as is
the manner in which the change was
effected. - After the change, however, he
was more sensible to heat than before. - He,
as well as the other Negroes, were greatly
interested in the change - but they
were all tho'fully disappointed; for by
a process as strange as before, he afterwards
retrograded to his pristine hue! Like
a humane, & enlightened Republican,
Dr. W. contended that the blacks were
our equals in point of Intellectual ca-
pacity; and for Benevolence he thought
them our Superiors. - The nature of
Perspiration & Sweat is yet but little known.
Dr. W. thinks it is not a mere deposition

of excrementitious fluid from the
extremities of the Arteries— but consi-
der the skin as a great gland, vari-
ously modified & reflected over, both
the external & internal parts of the
body. &c. vide Haller & Blumenbach. —

March 5th. Lecture 90th. — Female
Organs of Generation.— A young heqesse
was exhibited to the class, who, upon exam-
ination, appeared to have never been
impregnated; but the parts were somewhat
disfigured by the venereal disease. — The
study of those parts, Dr. W. told us, how-
ever necessary, was a subject of great de-
licacy. — The good opinion of the Fair Sex is
perhaps essential to our success in practice,
as it respects reputation! By making
those parts a subject of common, or fami-
liar conversation, we should justly incur
their dislike! They are the Sanctum Sancto-
rum of Females whose good opinion is
valuable —

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valuable!— vide Books for Anatomical Names.
Just within the labia interna, next to the
pubes, is a rugous protuberance of the vagina
which is apt to be considered as preternatural
by young Accoucheurs— it is always to be
found. The broad ligaments, which envelope
the fallopian tubes, are nothing more than
duplications of the Peritoneum— Those
tubes commence at the angles of the uterus
& terminate near the ovaria, in fimbriated,
patulous, trumpet-shaped mouths.— They
are curved in their course— will only re-
ceive a bristle at the uterus— I will admit
the little finger at the other extremity.—
Dr. W. thinks there are Hermaphrodites; but
a large Clitoris has often led to Mistakes.—

March 3th. Lecture 9th.— 4 o'clock. P.M.— Fe-
male Organs continued.— The substance
of the uterus is very firm, and capable of
great dilatation— It would scarce contain
the kernel of an Almond in the virgin
state.— In its unimpregnated state, it has

has no vessels which contain red blood.—
It has been said to be muscular,—but
it has more the appearance and texture of
Cartilage.— Its contractile power is such that
Accoucheurs have been under the necessity
of calling in assistance to prevent their
hands from becoming paralyzed, when
attempting to remove the Placenta.—
From the shortness of the Urethra, women
are less subject to calculus than men—
Calculi have been discharged from the
female bladder, as large as peach-stones,
by dilating the Urethra. It may be di-
lated with sponge.— In the operation
of Lithotomy in Females, Dr. W. prefers the
lateral incision through the ^{Urethra} Vagina into
the bladder.— By cutting above, anteriorly,
the wound would perhaps heal sooner, as
but one Membrane is wounded— but
the Inflammation from its contiguity
with the abdominal viscera renders it
more dangerous—(study hard & fast!)—

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March 8th. Lecture 92nd. P.M. — Genera-
tion. — For the different Theories on this
subject, see Leuwenhoek, Haller, Blyth, and
Spalanzani — also Blumenbach, &c. — That
the Animalcula found in the Semen mas-
culinum is different from those found
in other fluids is probably a fact — but this
is no proof that they are preexisting germs;
as has been tested by Spalanzani, & others,
who found them in the female Ovary,
where they only wait for the male se-
men to vivify them. — For instance his Expts.
with Eggs, &c. — But even the place of Con-
ception is not yet fully known. That
is not always in the Uterus is evident
from extra-uterine Conceptions. — It how-
ever appears, from the cruel experiments
of M. Hunter, that during coition the fim-
briae actually grasp the ovaria, break
the vessels, and carry the ovum through

the fallopian tubes into the Uterus—
An objection was raised to this, from
an examination of virgins in monas-
tries, in some of which the ovaries
were found lacerated. But it was
afterwards shown that this might
take place from irritation of the
genitals, &c. independent of Coition—
Chovet found them lacerated in his
Maid who died with Nymphomania.

Neither is the thickness of the coats
of the ovaries an argument against
it—as it becomes large, thin, & trans-
parent at Puberty, & may require
but little force to rupture it—&c.—

Bloodvessels—Jugular veins—The
external jugular runs upon the Ster-
no-mastoid Muscles, which they de-
cussate—by pressure upon them be-
low they may be opened with safety—
They are seen plainly in children crying—

March 8th. Lecture 9th 3rd. - 3 o'clock P.M. On
the Bloodvessels. - The Carotid Arteries
originate from the convex part of the
Aorta, at the curvature - The right and
left close together. - The right passes up
some distance, when it divides. - The left
rises in two small, separate branches -
This difference is the only reason Physi-
cians give for the preference given to
the right hand. The greater column of
blood giving more impetus & strength.
These vessels pass up the neck without
anastomosing, and still retain the same
size, which is a proof that they are
not conical, and that they only decrease
in proportion as they give out branches.
They give off the laryngeal, sublingual,
facial, submaxillary, occipital and
temporal Arteries - each supplying the
parts with blood, from whence they
take their Appellation - &c.

March 9th. Lecture 9th. - Bloodvessels,
and Nerves - Many of the complex nerves
pass down from the brain to the body -
this is the reason why injuries done to
the neck, tho' they paralyze all below them
do not immediately destroy life, &c.? The
wonderful connexion and distribution of the
nerves throughout the body are calculated
to prevent material injury from the
destruction of one nerve, &c. - The eighth pair,
par vagum, or wandering pair, passes out
of the foramen opticum, and after reaching
the curve of the subclavian artery, it divides
into 2 branches, one of which, called the re-
-current nerve winds round the artery,
and turns back again. - By stripping
or rubbing these nerves down between
the thumb & finger, it was found that
motion was produced in the Diaphragm
& other parts to which they are distribu-
ted. - This was laid hold of as a decisive

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proof of the existence of a nervous fluid, and
that by thus rubbing it down the fluid was
propelled forward into the Muscles to excite
Motion. - But unfortunately for this theory,
some unlucky experimenter happened to
stroke the nerve upwards, when the same
effect was produced on the Diaphragm! -

4 o'clock. P.M. Lecture 9th. - Bloodvessels
and Nerves. - The Brachial Artery in one case
out of 4 or 5, divides before it reaches the fore-
arm. - This is favorable in case of Aneurysm
at the elbow. In operations in the Axilla,
great care must be taken not to wound the
Artery. &c. - Injuries done to the nerves in
the palm of the hand, are apt to produce
Tetanus. - The nerve should always be di-
vided in order to prevent it. - The 2 subcu-
taneous nerves of the fore arm run close
to the Median & Cephalic veins. - hence they
are sometimes wounded in bloodletting. - In
this case, if troublesome, they should be divided also.

March 10th. Lecture of 6th. - Bloodvessels
and Nerves - Dr. W. thinks the practice of Dr.
Rush in Tetanus is to be preferred - viz.
Bark, Wine, &c. - Inflaming the part wound-
ed with Spirit of Turpentine, &c. - The fear
of wounding the small arteries in the hand
should never prevent the cutting of the
nerve, when necessary - as they may be
stopped by pressure, without being taken
up. - The contents of the abdomen are sup-
plied by 3 arteries. - The internal Iliacs are
generally called Hypogastric. - Dr. Wistar
himself once had symptoms of Tetanus
from a wound in his foot - He was
affected occasionally with a languor &
slight rigidity of the lower jaw, &c. These
were removed by the vinous potation. -

4 o'clock P.M. Lecture of 7th. - Bloodvessels
and Nerves - The Epigastric Artery must be
carefully avoided in the operation of Para-
centesis. - When the belly is distended with
Water, there is most danger of its coming in

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in the way, when the operation is performed
after the old manner; that is, in the middle
of a line drawn from the Umbilicus to the
superior anterior spinous process of the
Ilium. — Mr. Cline, who is now the first
Surgeon in London, in performing the ope-
ration in this way, wounded the Artery,
and his Patient bled to Death. — Soon after,
Mr. Pott, to avoid this accident, performed
the operation in an old Cicatrix, where
it had been done with safety; but the
first substance discharged was excrement.
The intestine had adhered to the wound in-
side, & consequently was wounded. — This
Patient died also. — The method now prac-
tised, and the most safe, because there are
no bloodvessels in the way, — is in a line be-
tween the Umbilicus & symphysis pubis;
or along the Linea Alba. — The taking up
of the femoral Artery, in case of Aneurysm,
should be done as low down as possible, in
order that any nourishing branches may

be left. - The femoral artery is the same with respect to the thigh, as the Aorta to the body. - It affords nourishment chiefly to the leg & foot - does not branch much in the thigh.

March 14th. Lecture of 8th. No. 10. A. M. -

Bloodvessels and nerves, recapitulation on, &c.
Veins. - The veins generally accompany the arteries - but are more superficially situated. The Cephalic vein, so called from its supposed connection with the head, runs from the back of the hand along the superior part of the forearm to the elbow, above which, it unites with the Basilic vein & forms the Brachial vein. The Basilic, or Royal vein runs from the little finger along the inferior part of the forearm - they divide towards the elbow and form the Mediana, Basilic & Cephalic. - But the divisions are seldom alike in two subjects. The Vena Azygos. returns the blood from the intercostal ^{veins} Arteries - lays along the spine - The Saphena ^{vein}

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vein of the foot is the best to bleed in, & it may frequently be seen in children when no other can - &c. - Dr. W. had a case of Tetanus, which terminated fatally, brought on by treading on a rake-tooth - The young man limped about for a few days when it appeared to be nearly well - he had however a slight rigidity of the lower jaw, to which he paid little attention. After a journey of 30 miles he was seized with the most violent Tetanus - He stood like a statue; and while in that situation the sweat flowed profusely; inasmuch that it dropped from his fingers, leaving a puddle on the ground - This, Dr. W. thinks was owing to the increased action of the heart & Arteries while the capillary vessels remained open. -

One o'clock, P. M. Lecture 99th. - On Amputation; - By Dr. Shippen. - A leg was taken off before the class. Different methods were used in amputating by the Ancients. Dr. Shippen was the first who used the straight

straight knife in America. - Confidence
in our own abilities is essential to the
performing of an operation well. - Dr.
Shippen, in order to get rid of his embar-
rassment in his first operation at the hos-
pital under the inspection of Dr. Bond &
other old Physicians, continued to ^{Lecture to} the
Students, who were standing round, upon
the operation. (He had been giving private
Lectures previously.) This was an effectual
method - because he assumed the habit of
a teacher - After the operation was over,
Dr. B. told him he was the most impudent
son of a B- he had ever met with! -

Dr. S. prefers the straight knife to all others -
But the greatest difficulty is to know
When to amputate - Some limbs have
recovered which seemed almost impossi-
ble - The Arteries, in this operation, should
be all secured by ligature. - In amputa-
ting the fingers, they should be taken off
at the joint if the wound or ulcer

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permit of it— If the disease be in the An-
kle, amputation should be performed just
above— Mr. Foote, the Comedian, appeared on
the stage soon after such an operation
with as much dexterity as ever— having
an Artificial foot & joint— Amputation of
the Leg should be performed so low as to
miss the insertion of the muscles of the thigh.
When performed on the femur it should be 2
or 3 inches above the knee joint &c. —

4 O'clock, P. M. Lecture 100th. Absorbent Sys-
tem, — and venesection. — From all the ex-
perience and Observation yet had upon the
Absorbent System, it appears to be a distinct
one. — The Thoracic duct is the common re-
ceptacle of all the chyle & lymph. — This duct
passes up from about the 3 vertebra of the
loins along the spine between the Vena Azy-
gos and the Aorta, covered by the Vena Cava,
into the left subclavian vein — into which
its contents pass by a gentle stillacidium
to mix with the general mass of blood —

Bloodletting—Dr. W. prefers the Fleam,
or spring-Lancet for this operation, but
he thinks it might be much improved
and rendered safer by being made broader
and less pointed.— Chapter of Accidents—

Care should be taken not to operate over
an Artery—if an Artery be wounded, an
Aneurysm of the diffused kind is generally
the consequence— and for this disease
the operation must always be performed—
When a nerve is punctured it produces
a stinging sensation; and the patient
will think that part of the lancet, or
some foreign substance remains in the
orifice.— This goes off, but after a while
a sensation of numbness comes on that
extends down to the hand.— It is said that
Tetanus sometimes follows.— The nerve should
be cut off.— Inflammation of the vein some-
times occurs after venesection, but from
what particular cause is hard to determine.

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Mr. Wignell's case was a remarkable instance. He was bled on Friday morning, and felt no inconvenience therefrom until evening - he had company till late in the evening, and drank more wine than usual. The first disagreeable sensation was a sense of tightness, for which he had the bandage loosened. Pain and Inflammation commenced, and gradually increased, both above and below the orifice. - The usual Antiphlogistic regimen was prescribed - The swelling terminated at the hand below, and at the shoulder above. - The appearance of the tumid arm was like lymph; appearing Anasarcaous - nearly pellucid. Dr. Parke, his Attendant, ordered blisters, which he had used in a similar case with success, but at present they answered no purpose. He became delirious and died the Monday week following. - On dissection, the Nerves were found to be intirely out of the way of the operation, and unhurt. Neither were the Arteries injured. The orifice

of the wound was closed - and had been
from the first day - And on strict ex-
amination, the vein was found to be
not cut through; so that nothing under
it could have been injured. - But on
opening the vein, it was found to be full
of pus - Continuing the dissection, it was
discovered to be full from the shoulder
to the hand - and also, all the connected
superficial veins, but none of the in-
ternal - At the shoulder there was
a stricture in the vein. - But Dr. M.
thinks that if no other disease had epis-
ted, he might have recovered - even af-
ter the suppuration of the veins - as
the internal veins were not affected. -
He had been complaining of pain in
limbs before, particularly his knee, for
which he was bled. His delirium,
in all probability, did not arise from
the affection of the arm, as at that time
it appeared evidently to be better. However,

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Let what would be the cause, such was the
unfortunate fate of Thomas Wignell, one
of the managers of the New Theatre, in
Philadelphia.— Dr. W. doubts whether the
wounding of tendons ever produces any
bad consequences, notwithstanding many
ingenious Gentlemen believe they do. —
Valedictory— Thus, Gentlemen, said Dr. Wistar,
with this long Lecture we finish our course.
— I thank you for your steady attention
thereto— & also for the patience with
which you have waited for me, when I
have not met you at the appointed
hour. — I assure you, that delay was un-
avoidable. — And it could not have given
you more pain than it did me, in
not being able to attend at the hour. —
Finis.

Dr. Shippen's Lectures are reserved to
the end of the course, in order that
they may be all together. — tho' they were
interspersed with the others when given.
They commence on the next page.

Lectures on Midwifery.

Professor Shippen introduced his ob-
stetric course with an explanation of the
elegant paintings in the hospital, present-
ed by Dr. Pottergill. - A brief description of
the female organs of Generation &c. - He acquiesces
with the opinions of the Abbe Spallanzani
respecting Generation, and passed some high
encomiums upon his ingenuity & indefatiga-
ble industry. - The clitoris is of various sizes in
different Females. - There were two women in
the Hospital some years ago, who, in consequence
of the enormous Clitoris of one of them, copulated
together; and afterwards lived as Man & Wife! -
The imperforated Hymen is a serious complaint,
but easily remedied by incision. - J. Hunter, in
a Letter to Dr. S. rather resigned his former opinion
respecting the vesiculae Seminales, viz. that they did
not serve as reservoirs of semen. - Spallanzani pro-
duced whelps by injecting dog's semen into a bitch.
Dr. S. wondered we had not heard of his producing men the same way!

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March 5th. Lecture 2nd. — Generation, and a farther examination of the Paintings & Wax Preparations. The Catamenia does not depend on the influence of the Moon; as it flows occasionally on every day of the month. — Neither does it depend on Plethora, nor fermentation, as no such things occur. — But it is too little understood. — Its use is to nourish the fetus, &c. — In Abortions, or discharges from the Uterus during pregnancy, or after conception, we ought to observe strictly the Matter discharged; as it may consist merely of clotted blood, &c. —

March 7th. Lecture 3rd. — Conception, &c. — A great change takes place in the system after conception & during pregnancy. — Also in the situation of the diaphragm, stomach, and intestines, &c. — Touch. — To determine whether a Lady be pregnant, is a task of great difficulty; — as a cessation of the Menses may take place from obstruction — and sometimes Menstruation continues, or at least, a discharge of blood from the

Vagina, through the whole period of pregnancy - as also sickness at stomach, swelling of the legs, &c. &c. &c. - Conception, or pregnancy may be ascertained with greater accuracy by what Accoucheurs call touching - introducing the finger to the os tincta - If it can be moved about with ease, & has a soft, pulpy feel, you may conclude there has been no conception - Abortion occurs in the earliest stages of pregnancy - Miscarriage, after the child has grown large enough to prospere Life - They should by all means be prevented, if possible, by bloodletting, recumbent posture, &c. - If a discharge of blood come on without pain, there is little danger - If the pain & usual symptoms occur & continue, there is more danger of miscarriage. If miscarriage be inevitable, the pains should be encouraged by Port Wine, beef-steaks, &c. - Females of irritable habits, &c.

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generally bring forth before the expiration
of 9 months— Others continue longer. Instance
the Sea Captain's Wife!— To know whether
Labor have actually commenced, intro-
duce your finger & feel the Os Tere— If
it remain hard, unprotuded, & undilated,
you may assure your patient, that
your presence is not yet needed, and re-
turn— Otherwise you might wait 24 or
48 hours, and the Lady would consider it
a tedious & difficult Labor— Cunnings as
the Women are, says Dr. S.— they do not un-
derstand reckoning!— They frequently com-
mence at the cessation of the Catamenia,
which is a fallacious criterion— Dr. S. has had
to wait 2 or 3 weeks after the time expected.

March 8th. Lecture 4th. — Parturition.

A complete knowledge of Midwifery alone, is by no means sufficient for the
Accoucheur— Many other Qualifications
are necessary— two of the most essential,
are Patience & Delicacy— Without

delicacy and address, we need never expect eminence.---A young Gentleman, who possessed an adequate knowledge of the business was called upon by a Lady. He entered her Apartment, where he found her, & her sister. She told him she expected soon to stand in need of his assistance. / Not many of our American Ladies would say this much / Without farther ceremony, he turned to the Lady's sister, and asked her aloud for some laud or pomatum! at the same time rolling up his sleeve! The Lady stared - and calling her sister after her into another Apartment, gave her a quinine to give the Doctor, and told her to inform him, that she would send for him when she wanted him! This conduct had such an effect upon his reputation, that he was obliged to decamp, and seek out a new neighborhood.---

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When sent for, we should first enter a lower
apartment, and send up word by a maid-
servant, that the Doctor is come - We
must ^{wait} patiently until we are called upon,
though it should be an hour or two - take
up a book, or so - for it frequently happens
that our presence is dreaded until the
pain becomes violent - or they are fixing
the room, &c. - When we enter the room,
address the company present with ease,
and leave our patient till toward the
last - when we should address her in ge-
neral terms, as inquiring after her health,
&c. - Seat yourself by her, and feel her
pulse - then walk about the room in-
-differently - If her pain become violent
and frequent, advise her to lay down &
take a nap - & refresh herself - & she'll
be better - &c. &c. When she has got to bed
for the last time, we should contrive to
set the window shutters closed - or the
room

room darkened by some means, if we
can without suspicion of the real
cause - for the Lady will not be half
so bashful in the dark! We should
pretend the light is too strong for her
eyes - or some specious pretext. - Then
seat yourself at the foot of the bed,
and, while a pain is on, lay your
hand on her Ankle - and during e-
very pain, slip it a little higher -
When you reach her thigh, especially
if the Lady be young, you will pro-
bably be repulsed two or three times
with "Behave yourself Doctor"! &c. -
You may persist as long as you think
expedient, and then tell her of the ne-
cessity of it, &c. - When the pain be-
comes right severe, have your fin-
ger oiled, and during one of the severest,
slip it up the perineum into the
Vagina - That done, the dreadful thing
vanishes - Your object, is to examine
the

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The os tinea - if you pass your finger
in a straight line you will not meet
with it - you must curve your finger a-
long the hollow of the sacrum, in which
it lies. - If it be only open about the size
of a quarter of a dollar, your patient should
be invited to rise and walk about. - You
will now find a difficulty on the other
hand; as they will be likely to request you
to examine oftener than is necessary, or
even proper. - If after another pain, you
find the os tinea dilated to the size of a
dollar, and so on till the membranes pro-
trude, your patient is in a good way for
a speedy & safe delivery; - But you must
set no time for the accomplishment
of the business - Avoid direct answers - tell
them if the pains continue good, they
will soon be delivered, &c. - There is a great
secret to be known in order to conduct
properly at this state of the business -
which is to - DO NOTHING! - But after
the head of the child has protruded again

against the Perineum, with its face to the
sacrum, &c. as is natural, you again have
something to do - You must apply your
hand to ^{the} perineum, and by an e-
=quable pressure, prevent laceration, while
the hand is gently applied above
to the child, &c. - You may now, perhaps,
for encouragement, ask the Nurse if she
have gotten the Ligature ready. - After
the delivery of the head, you should wait
the recurrence of 2 or 3 pains, which will
accommodate the shoulders to the passage -
and it is afterwards taken away, or ex-
=pelled with ease - Now feel the um-
=bilical cord, and if the pulsation in it
be strong, you should wait a minute
or two till it ceases, before you divide it -
When the pulsation becomes weak, ap-
=ply your string, which should be strong
and not too narrow, about an inch &
an half, or two inches from the abdomen -
then another between that & the Mother
to

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to prevent hemorrhage - & cut off the cord
in your hand for fear of bloodying the
child. &c. - If necessary, from the ignorance
of the nurse, you should dress the umbilical
cord by applying a rag round it, laying
against the belly, and securing by a bandage
round the body. - After spending about
15 minutes in this way, you deliver the
child to the nurse, & return to the mo-
ther, who is by this time so overjoyed
she calls you "dear Doctor"; and would
be almost ready to kiss you. &c. - You
must request her to be still, shut her
eyes, and not talk much. &c. - You now
examine the state of the placenta, by
introducing your hand along the um-
bilical chord. - You may here also wait
for the return of pain. - Previous to this
there will be a discharge of blood, &c. -
Be careful in pulling by the cord not
to break, nor to pull so hard as to invert
the

the Uterus. - If it will not easily, or soon come, an enema is an excellent expedient to procure its expulsion. - If hemorrhage, or other disagreeable consequence result from its remaining, the hand may be introduced along the cord into the Uterus to separate it. - After this, the Lady commonly falls into an easy sleep. - Dr. S. does not approve of an indiscriminate exhibition of Opiates after parturition. -

March 9th. Lecture 5th. - Making in all, 105 Lectures by Shippin and Wistar. - Difficult & Preternatural Labors. - Labors have been divided into Natural & Preternatural only - But there are certainly, from debility, and a variety of causes, Difficult Labors, which are not preternatural. - Dr. Hunter, in beginning this Lecture, used to say to his class - "Gentlemen, Instruments are never necessary." - While

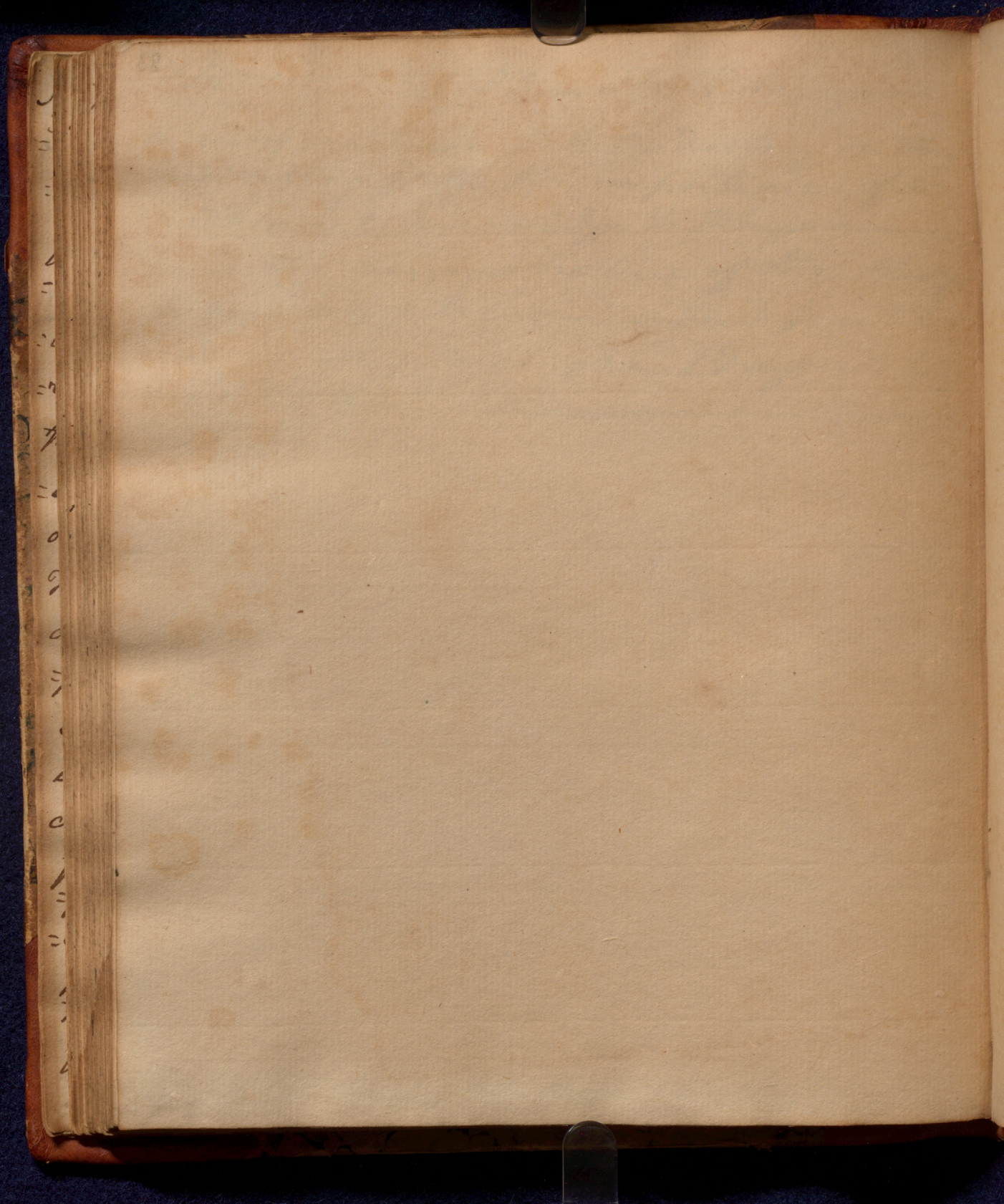
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While the woman retains her strength, and there is no mal-formation of her, nor the child, and pain still continues to recur, instruments should not be had recourse to; though her labor should last from Monday morning till Saturday night. - From a rigidity of the os tinea, on one side, which felt like a board, Labor was protracted from Monday till Friday. - The forceps should never be used unless the head have arrived in the pelvis. - Then, when necessary, the hand must first be introduced on one side, and then one branch of the forceps; directed by the hand & fixed over the ear, - and so of the other. - When thus secured, wait for the assistance of the pains, if the woman be not too much exhausted. The scissors & crochets should never be used, unless there be no alternative but the destruction of the child, or death of the Mother. - When using the forceps, aided by pains if expedient, draw gently from side to side.

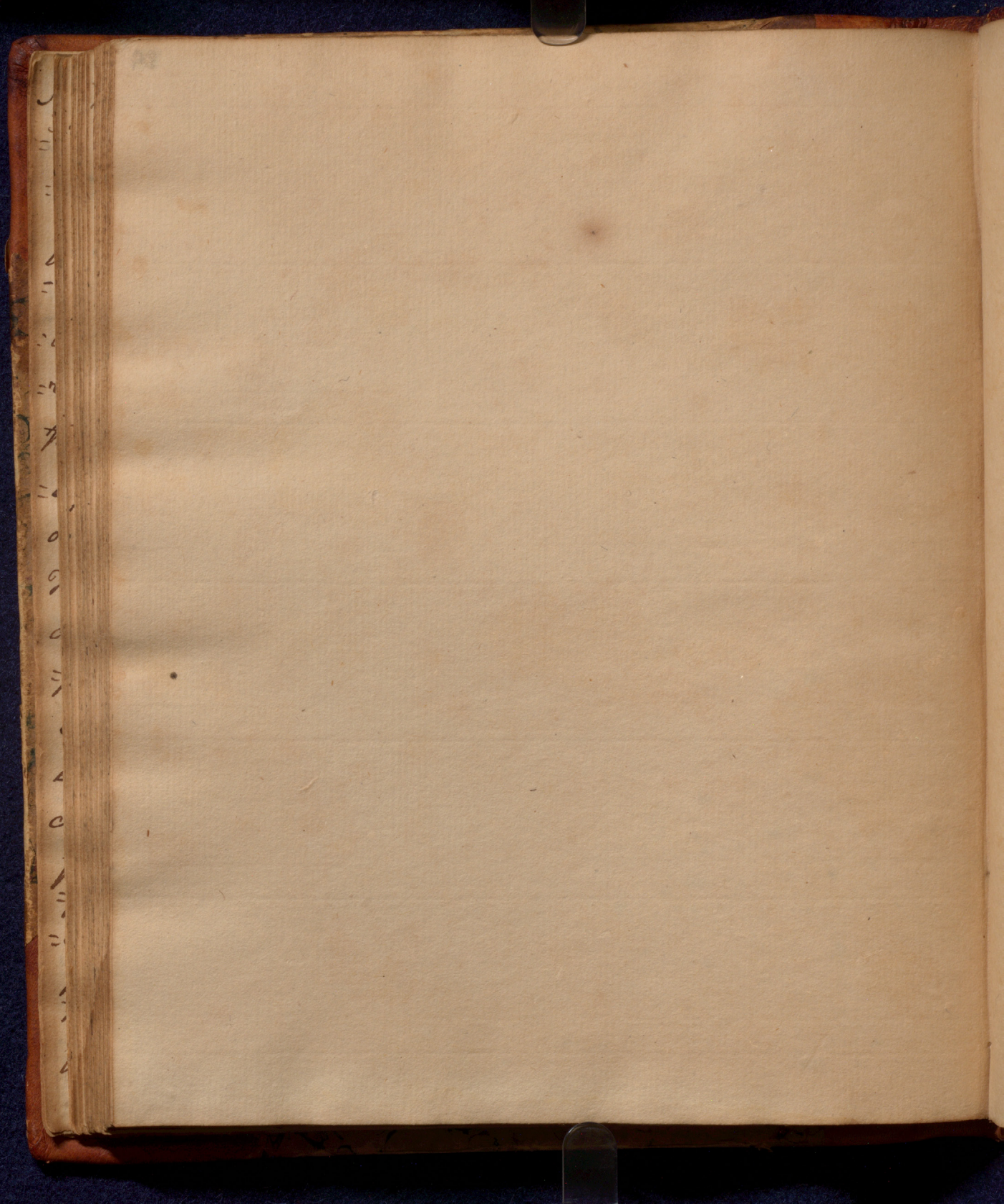
side, &c. - In difficult labors, where it is necessary for you to wait with patience a great while, you must be regardless of the alarms, and entreaties of Ladies around you, who will be calling upon you to deliver, &c. - When there are wrong presentations, as of the feet, breech, knees, shoulders, &c. the child must be delivered footling. - It may be turned by introducing the hand, &c. - Dr. S. related a case in which the uterus became paralyzed and would not contract. - It terminated fatally. - It required great force to deliver her, and she did not feel the least pain. - she was a fat woman - youngish. - Dr. S. while a student with Dr. Hunter, was sent to a Lady who had borne 5 children, that had all to be taken away by instruments. - It was Dr. Hunter's determination to have her delivered without, if possible. - In order

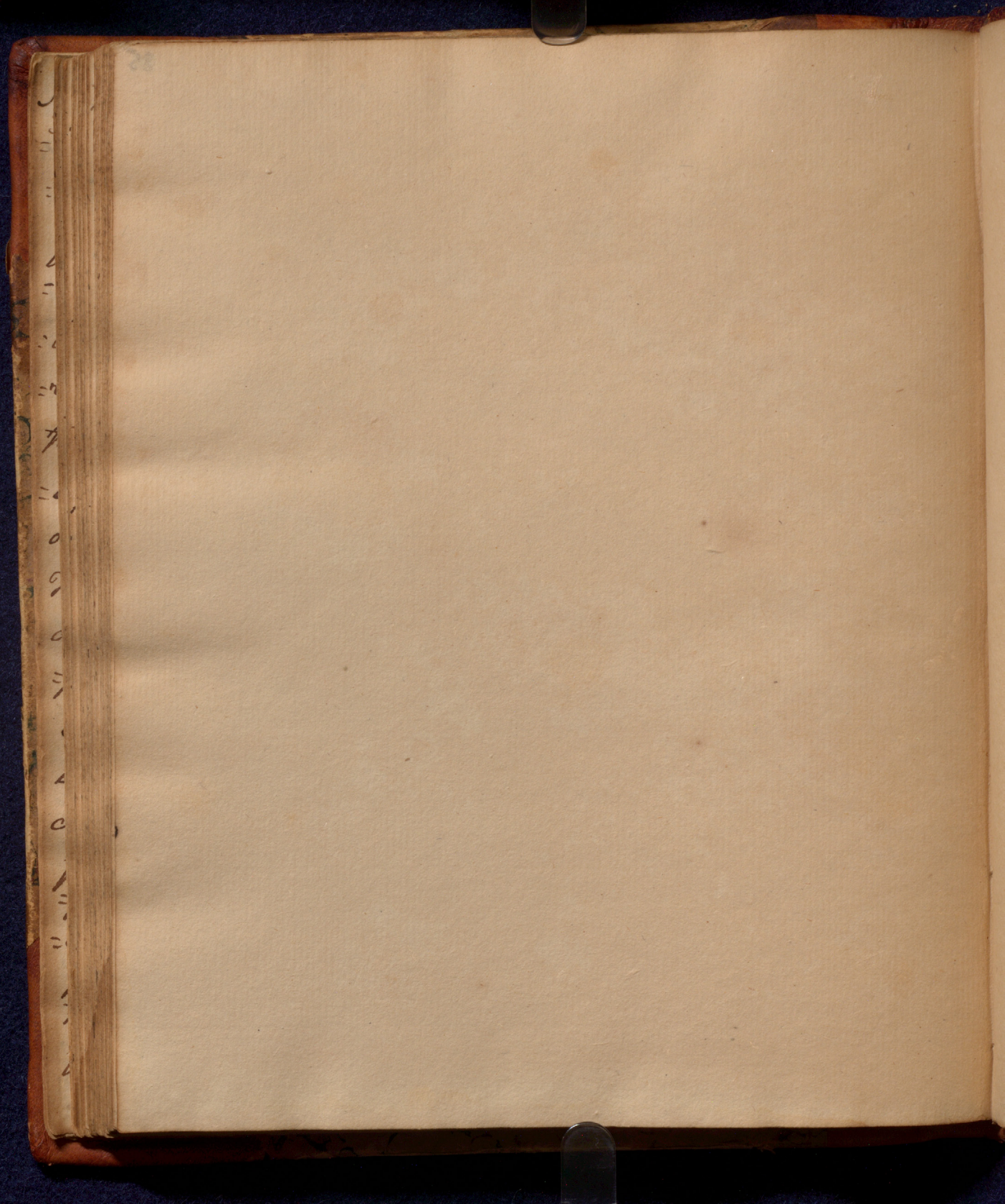
to give
order, Dr. S. an air of gravity, he was equip-
ped with Dr. H's large wig, hat, & coat!
As the weather was hot, he was under
the necessity of wiping the sweat off, &
unfortunately wiped his wig to one side,
by which the Ladies discovered young
hairs under it. They grew boisterous
on discovering this imposition, and the
Dr.'s "blarney" did not prevent them from
sending for the Old Doctor, who came
and requested a trial of 5 hours longer.
The labor began at 8 o'clock A.M. - but at
night, the instruments were sent for,
and she was delivered by them. In the
introduction of Instruments, great care
must be taken not to wound the soft
parts - Dr. — Dr. Shippen said he
was sorry he was under the necessity
of being so superficial; but he expected
we would inform ourselves by study. He
therefore wished us success & bade us adieu.

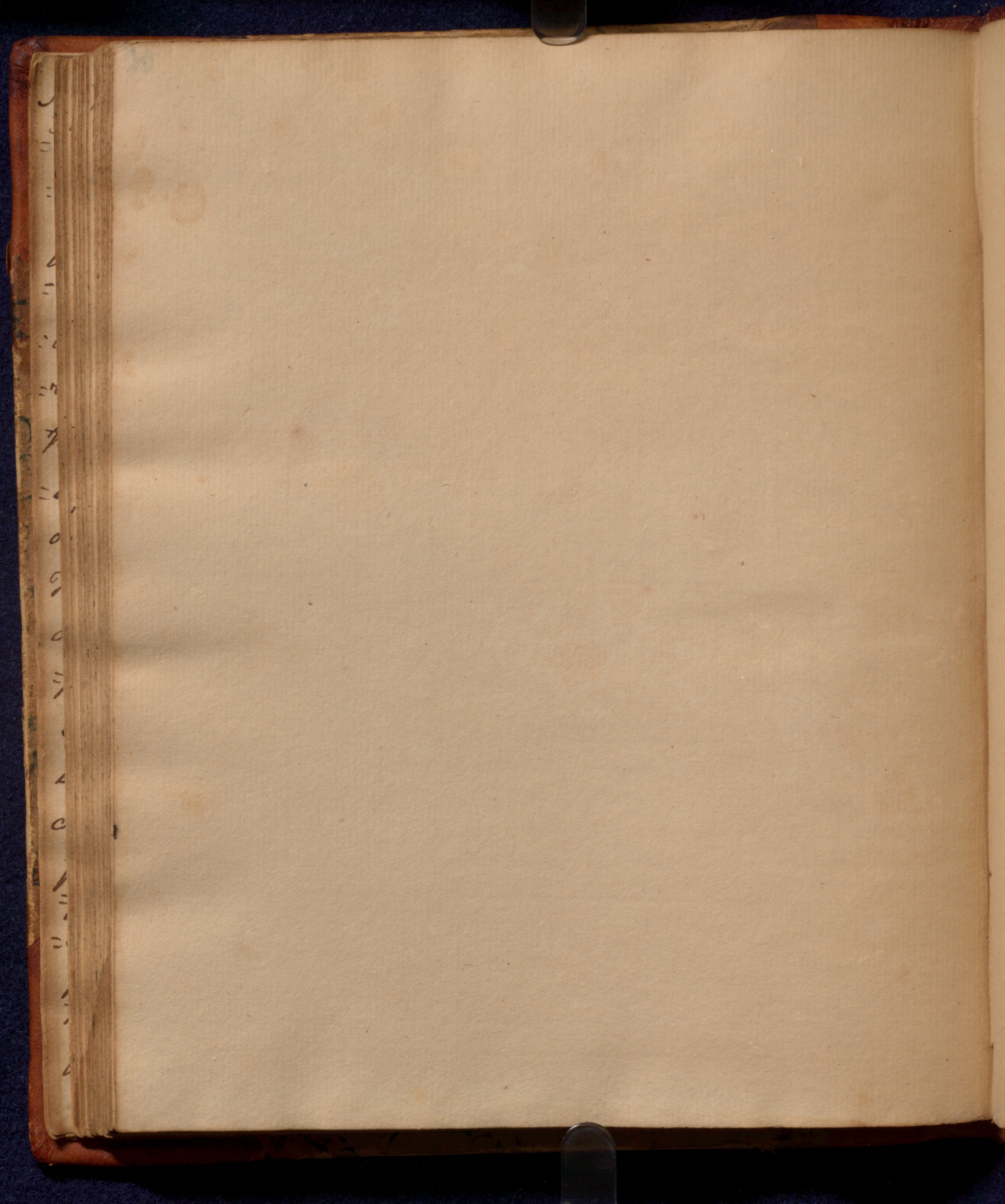
Novem. 8th 1803. — Dr. Winter gave
a very handsome Introductory on this
day; setting forth the importance of a:
-natomical knowledge to Physicians,
and the serious nature of the study.
He gave satisfactory, and indeed forcible
reasons "why man should dissect his
"dead Brother".

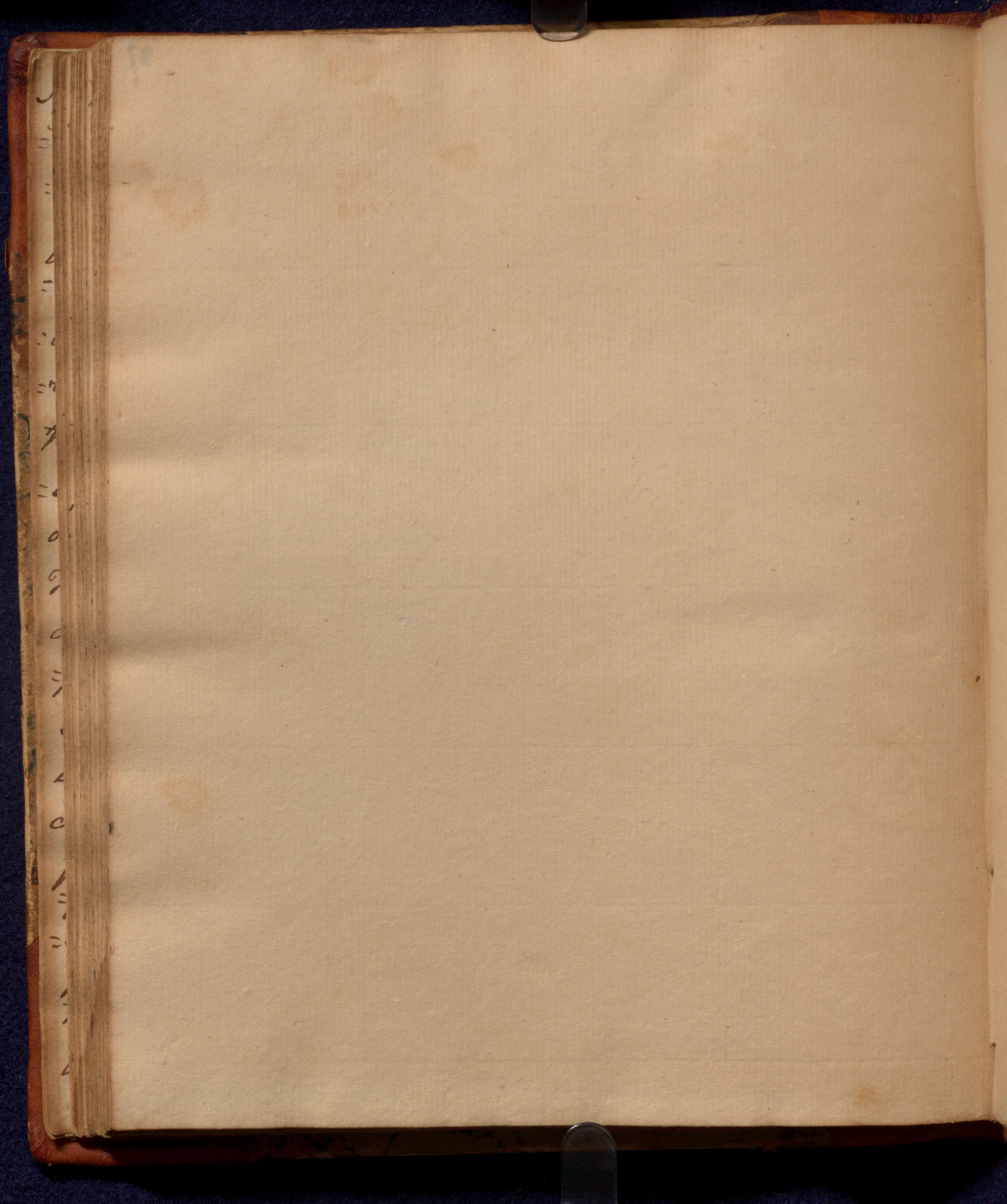
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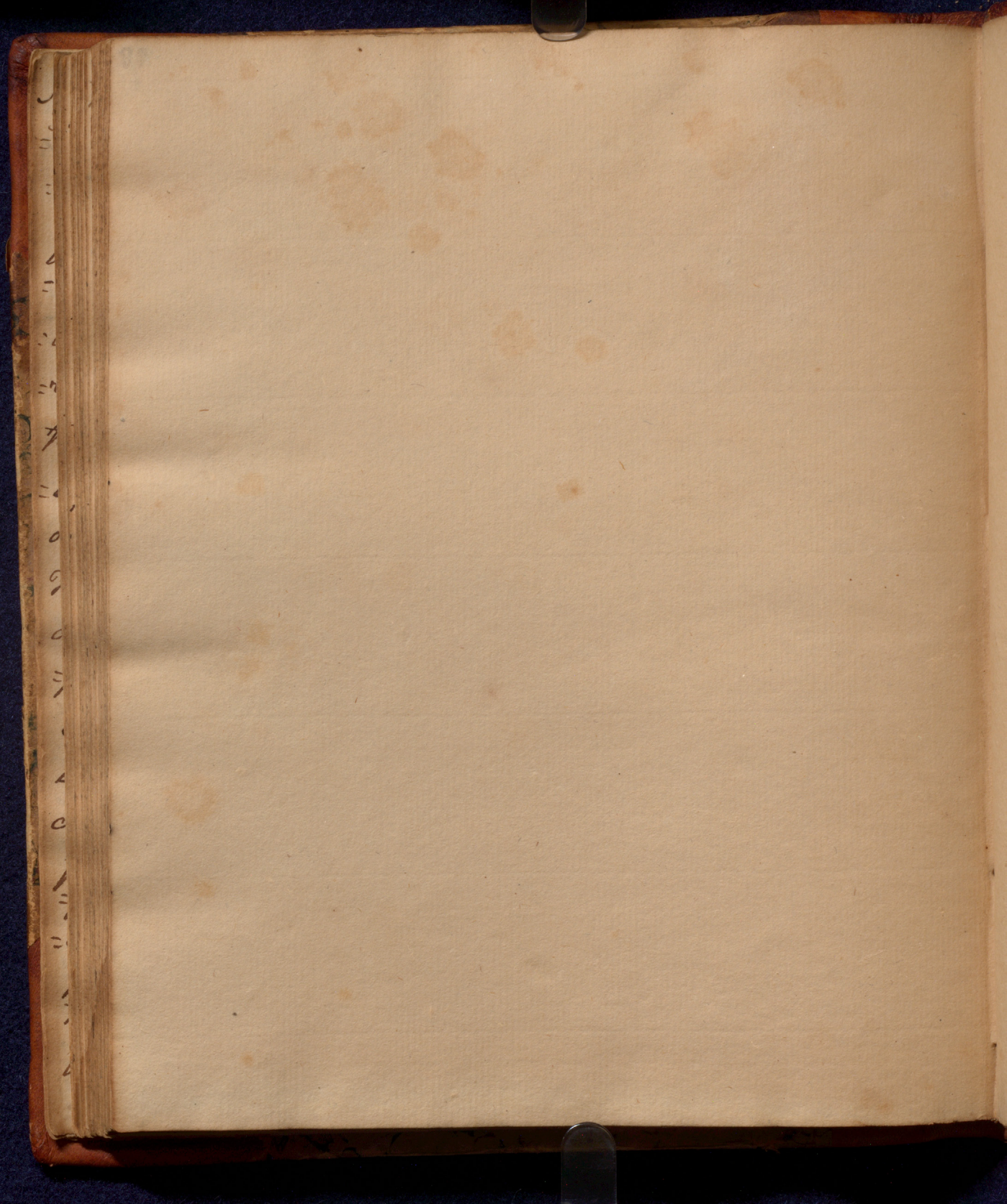


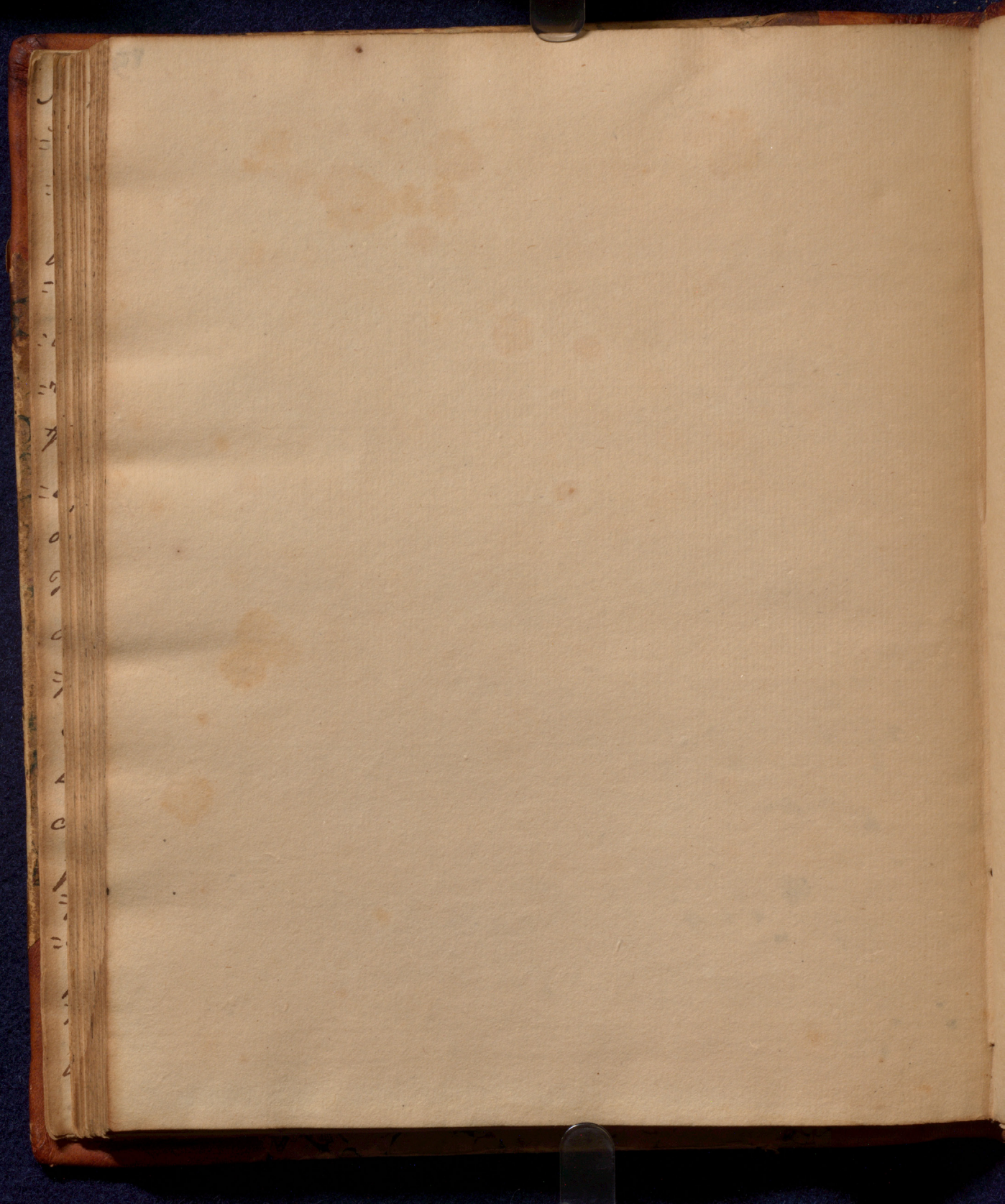


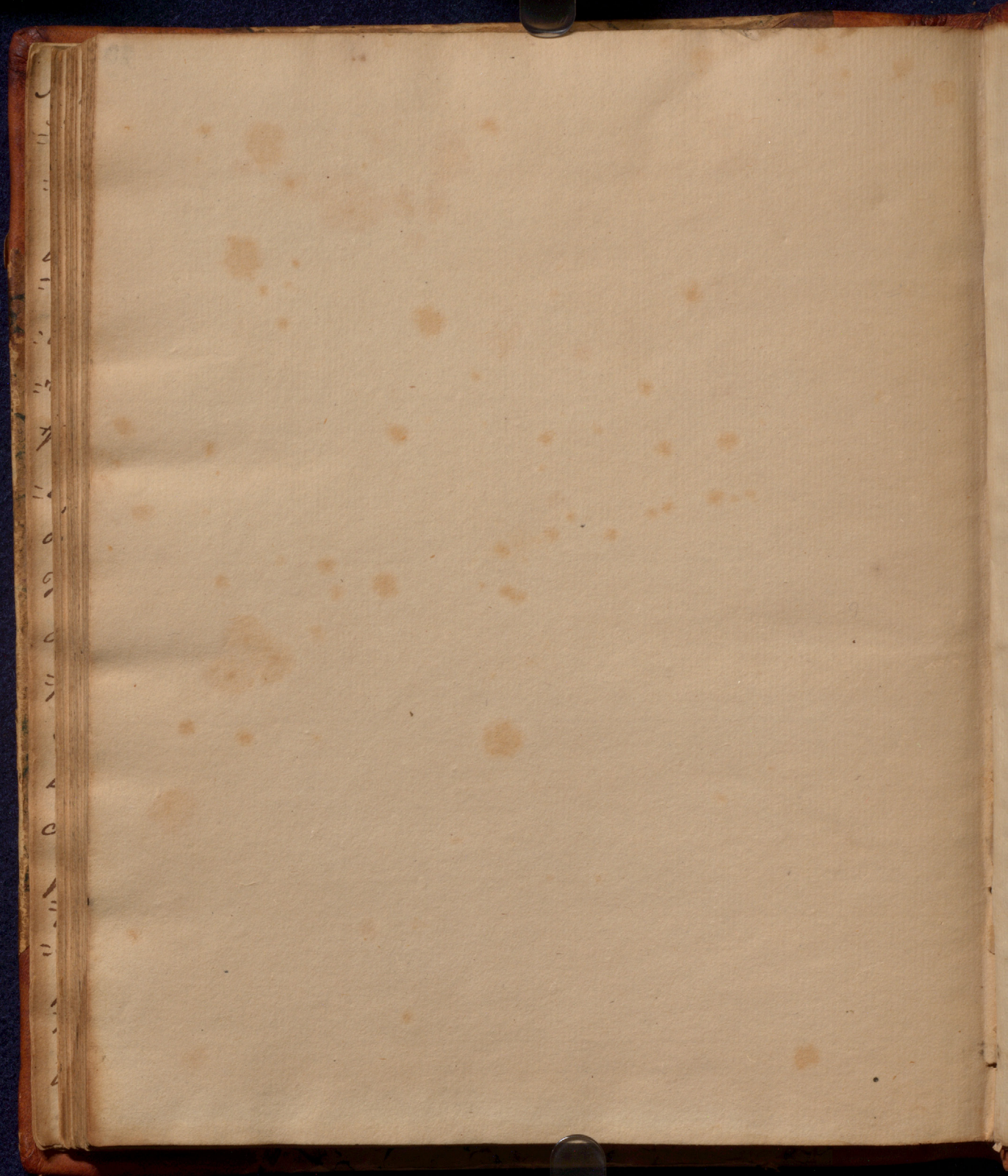


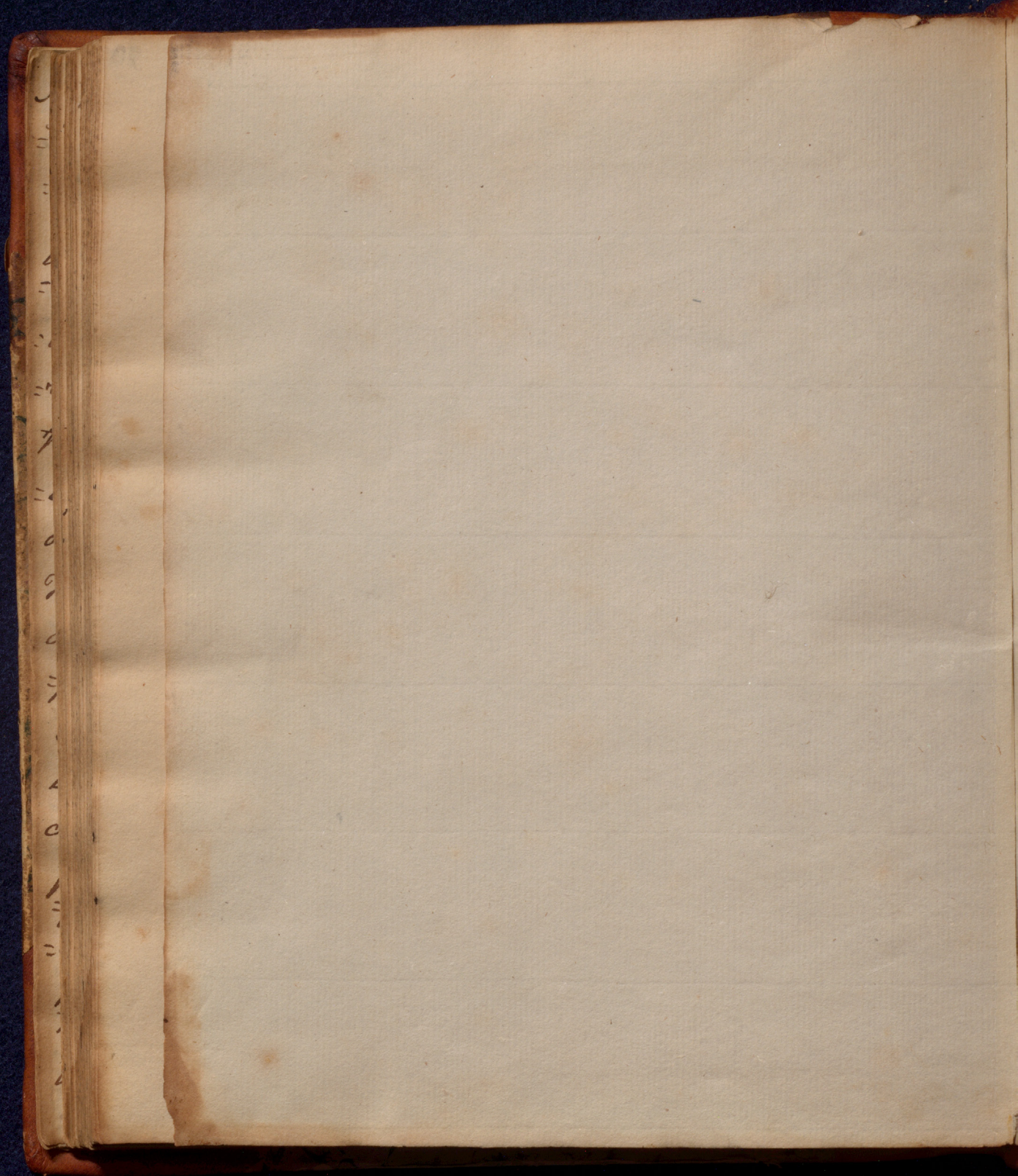




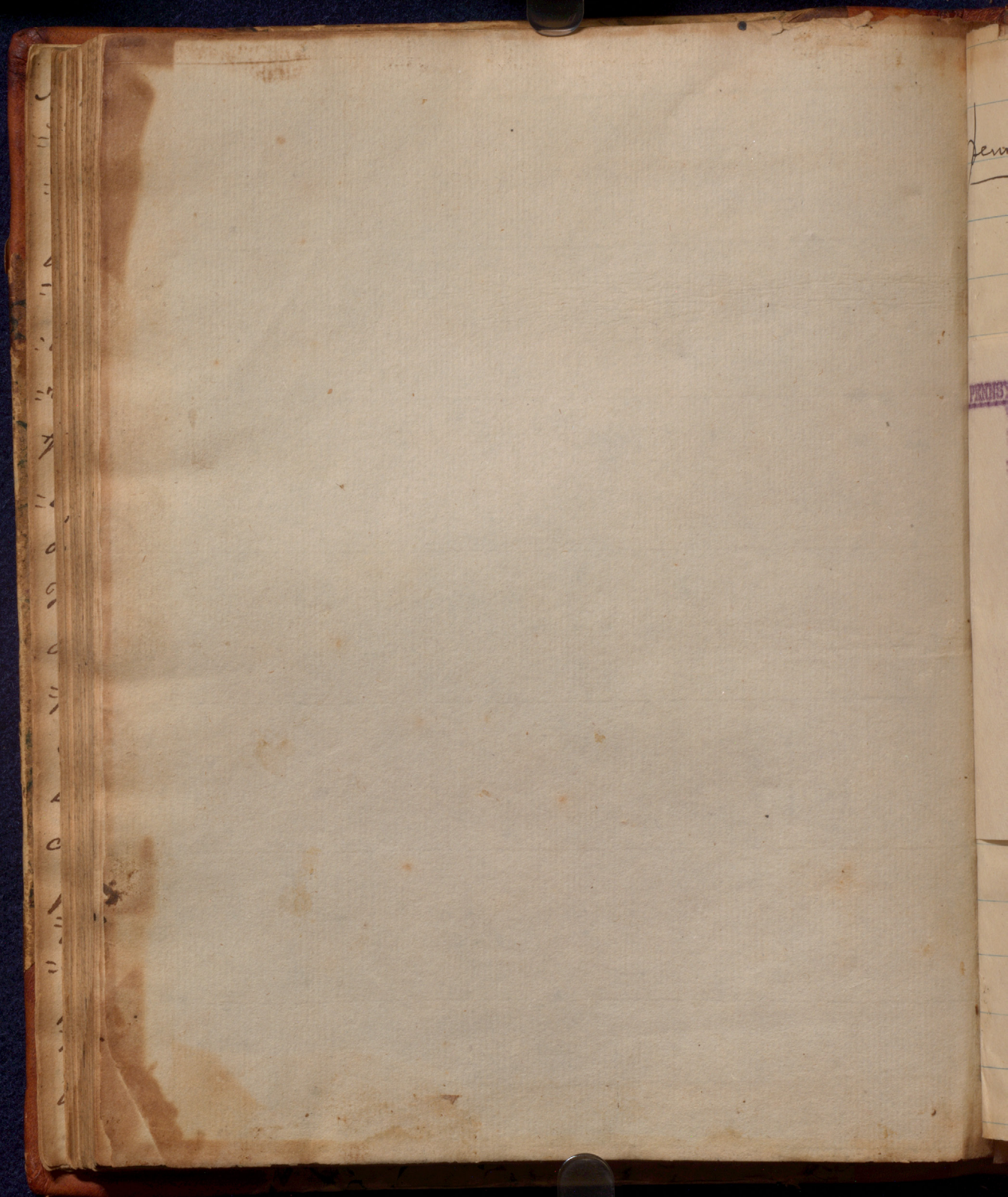








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Pennsylvania University
Notes taken
the Anatomical
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PENNSYLVANIA UNIVERSITY, 1802. Original Autograph Notes taken by William Darlington from the Anatomical Lectures of Doctors SHIPPEN and WISTAR in the University of Pennsylvania. Commencing Nov. 20, 1802 and concluding Nov 8th, 1803 with the Words Dr. Wistar gave us "satisfactory and indeed forcible reasons why Man should dissect his dead Brother". Written in 160 pages, 4to, original half leather. Philadelphia 1802-3. \$20.00

William Darlington was born a Quaker, but in 1806 was disowned by the Society for assuming a Military Profession by becoming a ship's Surgeon. In the War of 1812 he raised an Armed Company and was chosen Major. He was a Member of over 40 learned Societies and died in Westchester Pa. in 1863.

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and died in Westchester

Leaf 26. Abbanist - he has written
convolulus for volulus.

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